

FEDERAL WORKS AGENCY .
WORK PROJECTS ADMINISTRATION

F. C. HARRINGTON
Commissioner

CORRINGTON GILL
Assistant Commissioner

NATIONAL RESEARCH PROJECT
on
Reemployment Opportunities and Recent Changes
in Industrial Techniques

DAVID WEINTRAUB
Director

Studies of the Effects of Industrial Change on Labor Markets



Amoskeag Manufacturing Co.

SECTION OF THE AMOSKEAG TEXTILE MILLS AS SEEN FROM THE STARK MILL

**LABOR AND THE SHUT-DOWN OF THE AMOSKEAG
TEXTILE MILLS**

by

Daniel Creamer
and
Charles W. Coulter

WORK PROJECTS ADMINISTRATION, NATIONAL RESEARCH PROJECT

Report No. L-5

Philadelphia, Pennsylvania

November 1939

THE WPA NATIONAL RESEARCH PROJECT ON REEMPLOYMENT OPPORTUNITIES AND RECENT CHANGES IN INDUSTRIAL TECHNIQUES

Under the authority granted by the President in the Executive Order which created the Works Progress Administration, Administrator *Harry L. Hopkins* authorized the establishment of a research program for the purpose of collecting and analyzing data bearing on problems of employment, unemployment, and relief. Accordingly, the National Research Program was established in October 1935 under the supervision of *Corrington Gill*, Assistant Administrator of the WPA, who appointed the directors of the individual studies or projects.

The Project on Reemployment Opportunities and Recent Changes in Industrial Techniques was organized in December 1935 to inquire, with the cooperation of industry, labor, and governmental and private agencies, into the extent of recent changes in industrial techniques and to evaluate the effects of these changes on the volume of employment and unemployment. *David Weintraub* and *Irving Kaplan*, members of the research staff of the Division of Research, Statistics, and Finance were appointed, respectively, Director and Associate Director of the Project. The task set for them was to assemble and organize the existing data which bear on the problem and to augment these data by field surveys and analyses.

To this end, many governmental agencies which are the collectors and repositories of pertinent information were invited to cooperate. The cooperating agencies of the United States Government include the Department of Agriculture, the Bureau of Mines of the Department of the Interior, the Bureau of Labor Statistics of the Department of Labor, the Railroad Retirement Board, the Social Security Board, the Bureau of Internal Revenue of the Department of the Treasury, the Department of Commerce, the Federal Trade Commission, and the Tariff Commission.

The following private agencies joined with the National Research Project in conducting special studies: the Industrial Research Department of the University of Pennsylvania, the National Bureau of Economic Research, Inc., the Employment Stabilization Research Institute of the University of Minnesota, and the Agricultural Economics Departments in the Agricultural Experiment Stations of California, Illinois, Iowa, and New York.

Since September 1, 1939, the Project has been sponsored by the National Resources Planning Board, Executive Office of the President, Washington, D. C.

**FEDERAL WORKS AGENCY
WORK PROJECTS ADMINISTRATION**

1734 NEW YORK AVENUE NW.
WASHINGTON, D. C.

F. C. HARRINGTON
COMMISSIONER OF WORK PROJECTS

November 7, 1939

Colonel F. C. Harrington
Commissioner of Work Projects

Sir:

The report transmitted herewith is concerned with the economic effects of the shut-down of the Amoskeag textile mills on the workers and the community of Manchester, New Hampshire. For over a hundred years the Amoskeag Manufacturing Company had been located in Manchester, at one time employing more than 16,000 workers. Before their closing in 1935 these mills, producing both cotton and worsted fabrics, were by far the most important single source of employment in the city.

The manufacturing activity of Amoskeag began, after 1921, to show losses more often than profits. In April 1935 the decision was made to shut down the mills; raw-material inventories were processed and in September the mills closed. In July 1936 the liquidation of the company was recommended by a special master of the bankruptcy court. During the next 2 months the entire property was sold.

Amoskeag employed more than 17,000 different persons during 1935, as many as 11,000 in the week of peak employment. In a city whose gainfully occupied persons numbered 35,000 out of a total population of 75,000 in 1930, a shut-down of these proportions was calamitous.

There was little to which the displaced workers could turn. In a field survey conducted late in 1936, almost one-quarter of the workers could not be located. Most of these had apparently left Manchester and some of the migrants had probably obtained jobs. Of those interviewed, only two-fifths of the men and one-fifth of the women had had any work since their

last Amoskeag job in 1935 and only one-third of the men and one-sixth of the women were employed at the time of interview; of the total man-months elapsed between the last Amoskeag job and October 1936, only 15 percent were spent in employment. Some of the workers, particularly the more skilled, had obtained jobs in other mills of the region despite continued widespread unemployment in these textile centers. Manchester's shoe factories also accounted for a few jobs. Some work was obtained in trade, in domestic and personal service, and in a scattering of other industries. Two percent of the men interviewed and 18 percent of the women had dropped out of the labor market, reporting themselves as not seeking work. In October 1936 two-thirds of the men and women who had been laid off more than a year earlier were unemployed and looking for jobs.

Toward the end of 1936 a committee of Manchester citizens undertook to attract new industries to the city, but their efforts were attended by relatively little success. By January 1937 Amoskeag Industries, Incorporated, purchasers of the Amoskeag properties, had sold or leased space in the mill buildings to five new companies employing more than 2,000 workers. By July there were 14 companies with 3,200 workers, but although additional concerns were subsequently attracted, others left the city and the aggregate employment of the new companies had dropped to 1,600 in September 1938, 2 years after the organization of Amoskeag Industries. The availability of Amoskeag machinery and mill space at liquidation prices had proved to be an inducement, but when the choice equipment had been picked there remained little to attract manufacturers to Manchester.

In these circumstances the need for relief measures was acute. In 1929 about 4 percent of the Manchester population received poor relief. By 1934, 13 percent of the families in Manchester were receiving general assistance (direct relief or local work relief). By November 1935, 23 percent of the families were receiving such aid. Of all New England cities for which information is available, only two - Boston and Fall River - exceeded the 1935 average for Manchester. During 1936 an average of 3,500 persons were employed on the WPA program and 29 percent of Manchester's families received general assistance or WPA work. Meantime the Manchester office of the

State Employment Service was flooded with applicants for work. The scarcity of jobs is indicated by the fact that the office made a total of only 544 placements in private employment between April 1935 and October 1936.

The peak in Federal assistance was in 1936, when the Government contribution amounted to 70 percent of the expenditures for general assistance and WPA wages. It is estimated that Federal grants were the source of payment for at least a fifth of the sales of Manchester's food stores in this year.

The continued insufficiency of employment opportunity in Manchester necessitated continuation of relief measures at high levels. In 1937 about one-quarter of the Manchester families were receiving general assistance or WPA work; in 1938 the average rose once again to the 1936 level of almost 29 percent. During 1937 and 1938 a higher proportion of families received general relief in Manchester than in any other of the 23 New England cities for which information is available.

Thus Manchester, once a prosperous manufacturing city, was left stranded when its largest company closed its mills after a long period of gradual liquidation. The loss of employment opportunity in 1935 for more than 11,000 workers raised social and economic problems for the entire population which are still unresolved and which only local and Federal relief and the Works Program have been able to mitigate.

Respectfully yours,

A handwritten signature in cursive script, reading "Corrington Gill". The signature is written in dark ink and is positioned above the printed name.

Corrington Gill
Assistant Commissioner

C O N T E N T S

Chapter	Page
PREFACE.	xix
I. INTRODUCTION	1
Plan of study and character of data.	5
II. COMPETITIVE PROBLEMS AT AMOSKEAG AND IN THE TEXTILE INDUSTRY.	8
General trends	8
Excess capacity.	8
Competition of substitute textiles	11
The style factor	12
Speculation in raw materials	13
Faulty accounting procedures	13
The relation of foreign trade.	14
Amoskeag's competitive position.	16
Obsolescence of equipment.	16
Cost of new machinery and repairs.	24
Management practice.	25
The effect of "giantism"	28
The experiment in rayon production	31
Local taxation	33
Summary.	36
III. AMOSKEAG'S PROFIT RECORD AND CORPORATE REORGANIZATIONS	38
The pre-war period, 1906-14.	38
The financial reorganization of 1911	43
The war years, 1915-18	45
The post-war years, 1919-25.	47
Accumulation of cash reserve	48
Decline in activities.	49
The financial reorganization of 1925	51
The financial reorganization of 1927	55
Amoskeag in the depression after 1929.	59
Amoskeag under the NRA textile codes	61
IV. EFFECTS OF THE SHUT-DOWN	68
Decline in Manchester's employment opportunities prior to the shut-down.	68
Attitude of Amoskeag workers after the shut-down	74
Characteristics of Amoskeag workers displaced by the shut-down.	76
Private employment after the shut-down	79
Interval between the shut-down and the first job	80
Employment status in October 1936.	81

Chapter	Page
Duration of employment status in October 1936	86
Distribution of total time after the shut-down	88
Character of reemployment.	88
Location of jobs	91
The regularly employed and the labor reserve after the shut-down	91
Emigration after the shut-down	95
Effect of the shut-down on relief rolls.	100
Some other considerations.	109
V. COMMUNITY EFFORTS TO ATTRACT NEW INDUSTRIES. . . .	114
Formation of Amoskeag Industries, Incorporated. .	114
Policies of Amoskeag Industries, Incorporated. .	117
New textile companies and related concerns . . .	120
Nontextile companies	125
Two years of Amoskeag Industries	129
Concluding considerations.	134
VI. SUMMARY AND CONCLUSIONS.	137
Summary.	137
General locational considerations.	138
Experiences of three other textile cities in New England.	144
Appendix	
A. THE EARLY LABOR SUPPLY AND WORKING CONDITIONS. . .	148
Original locational factors.	148
The Waltham model.	149
The native labor supply.	152
Immigration before the Civil War	154
Immigration from 1860 to 1890.	155
French-Canadian immigration.	155
Northern-European immigration.	159
Nationality composition of Manchester's population in 1890.	160
Beginnings of cotton textiles in the South . . .	163
Immigration after 1890	166
Polish immigration	166
Greek immigration.	168
Continued French-Canadian immigration.	169
B. EMPLOYMENT CONDITIONS, 1911-22	172
The company welfare program.	175
Employment conditions prior to and during the war	181
Post-war adjustments	186
The strike of 1922	195

CONTENTS

xi

Appendix	Page
C. EMPLOYMENT CONDITIONS, 1923-32	204
Inception of the Plan of Representation.	207
Structural organization of the Plan of Representation.	210
The plan in operation.	215
Wage negotiations, 1923-24	215
Wage negotiations, 1925-27	220
Relation of special difficulties to profitable operations	221
Further cost reduction through speed-up and wage cuts	222
The bond issue and another wage cut.	225
Wage negotiations, 1928-32	229
D. EMPLOYMENT CONDITIONS, 1933-35	248
Before the NRA	248
Trend toward union organization.	248
The NRA at Amoskeag.	250
E. EFFECT OF AMOSKEAG'S DECLINE ON EMPLOYMENT, EARNINGS, AND MIGRATION	265
Employment and unemployment.	265
Rates of labor turn-over	269
Total weeks of no employment	273
Part-time employment, 1934	276
Incidence of unemployment.	278
The labor reserve.	282
Size of the labor reserve.	282
Composition of the labor reserve	284
Annual earnings at Amoskeag, 1923-34	295
Migration, 1920-34	298
Extent of migration.	298
Character of migration	303
Amoskeag emigrants	308
Summary.	311
F. SUPPLEMENTARY TABLES	312
G. THE COMPANY PERSONNEL AND INCOME-TAX RECORDS . . .	321
The personnel record	321
The income-tax card.	322
Sampling procedure and representativeness of the sample	323
Periods into which data have been grouped for analysis.	330
The skill classification of occupations.	331
Personnel-record schedule.	334
Income-tax-record schedule	335

Appendix	Page
H. OCCUPATIONAL-HISTORY SCHEDULE AND DEFINITIONS OF IMPORTANT TERMS	336
Occupational-history schedule.	336
Definitions of important terms	337
I. SOME EVIDENCE ON THE RELIABILITY OF AN EMPLOYMENT HISTORY BASED ON THE WORKER'S MEMORY.	339

CHARTS AND ILLUSTRATIONS

Figure

Section of the Amoskeag textile mills as seen from the Stark Mill.	<i>Frontispiece</i>
1. Population of the United States and number of active spindles in the cotton-textile industry, 1840-1935.	10
2. Annual production of cotton and worsted cloth, 1907-35.	42
3. Monthly cotton production, 1912-35	42
4. Relative change in net sales and production costs, for the cotton section, 1906-34.	45
5. Net sales and production costs, for the cotton section, 1906-34	47
6. Annual profits and losses before and after the payment of bond interest, for the cotton and worsted sections, 1928-34.	60
7. Removing a full lap from a picker.	73
8. Repairing break in sliver on a drawing frame . . .	78
9. Worker "piecing up" on a slubber	83
10. Percentage distribution of total man-months elapsed between last Amoskeag job and October 15, 1936, by employment status, sex, and marital status. .	89
11. Tending a fly frame (doffing).	94
12. Ring spinner	98
13. High-speed beam warper	103
14. Slashers perform the last step in the preparation of a warp.	108
15. Drawer-in entering a new warp.	112
16. Worker operating a machine which automatically ties the ends of one warp to those of another that is to replace it.	119
17. Cotton napper.	126
18. Wool comber.	132
C-1. Centered 12-month moving averages of man-hours worked and numbers of persons employed, by section, 1925-34	205

CONTENTS

xiii

CHARTS AND ILLUSTRATIONS-Continued

Figure		Page
E-1.	Number of persons on pay roll and estimated number of full-time employees required each week, 1927-35, for the cotton and worsted sections . .	285

TEXT TABLES

Table		
1.	Number of active spindles in the United States, New England, and southern States, 1870-1935. . .	9
2.	Quantity of cotton cloth exported, imported, and produced in the United States, 1910-33	14
3.	Distribution of machinery in place in departments of the cotton section, August 1934, by date of manufacture.	17
4.	Distribution of spinning-frame spindles and looms in the cotton-goods industry in 1935, by date of installation	18
5.	Percentage increase in output per man-hour of processing departments of the cotton-textile industry made possible by mechanical changes, 1910-36.	20
6.	Average age of spinning-frame spindles in the cotton section, 1921-34.	21
7.	Distribution of spinning-frame spindles and looms scrapped in the cotton section, 1921-34, by year of scrapping	23
8.	Distribution of spinning-frame spindles and looms scrapped in the cotton section, 1921-34, by age at time of scrapping	23
9.	Number of spindles in the spinning departments of the various mills in the cotton section, July 31, 1934.	29
10.	Percentage taxes are of gross income for Amoskeag Manufacturing Company and for cotton-textile corporations in New England and the South, 1926-33.	34
11.	Assessed valuation of Manchester and Amoskeag Manufacturing Company, taxes paid by Amoskeag, and the tax rate, 1910-36.	35
12.	Annual record of operating profit or loss, dividends, and surplus or deficit for the cotton and worsted sections of the Amoskeag Manufacturing Company, 1906-34	39
13.	Annual production of cotton and worsted cloth, 1907-35.	41
14.	Distribution of Manchester's gainfully occupied population, by industrial group, 1930.	69

TEXT TABLES-Continued

Table	Page
15. Number of wage earners in manufacturing establishments in New England, Manchester, and Amoskeag, 1899-1935.	70
16. Number gainfully occupied in Manchester, by selected occupational group and sex, 1920 and 1930.	71
17. Indexes of monthly employment in the manufacture of cotton and woolen and worsted textiles in the United States, 1935 and 1936	72
18. Percentage distribution of those who were reemployed, by interval between last Amoskeag job and next job and by sex.	80
19. Percentage distribution of workers, by age, sex, and marital and employment status as of October 15, 1936	82
20. Percentage distribution of workers, by degree of skill of longest Amoskeag job, 1930-34, sex, and marital and employment status as of October 15, 1936	84
21. Percentage distribution of workers, by industrial section, sex, and marital and employment status as of October 15, 1936	85
22. Percentage distribution of workers, by marital status and duration of employment status as of October 15, 1936, and sex.	87
23. Percentage distribution of total man-months elapsed between last Amoskeag job and October 15, 1936, by employment status, sex, and marital status.	89
24. Industrial distribution of employment after the shut-down.	90
25. Percentage distribution of a special sample of workers, by employment status as of October 15, 1936, employment stratum at Amoskeag, sex, and marital status	92
26. Active file of Manchester workers at New Hampshire State Employment Service, 1935-38.	99
27. Number of persons in cases receiving general relief and amount of relief extended in Manchester, April 1933-September 1938.	107
28. Percentage distribution of population in Manchester, urban New England, and urban United States, by age, 1920 and 1930	110
29. Monthly report of the number of new companies located in the Amoskeag mills and their volume of employment, January 1937-September 1938	130

CONTENTS

xv

APPENDIX TABLES

Table	Page
A-1. Distribution of foreign-born population in eight New England cities having a population of 50,000 to 125,000 in 1930, 1890-1930.	161
B-1. Annual cost of pensions as a percentage of annual manufacturing costs, 1916-35	178
B-2. Indexes of cost of living in Boston and wage rates at Amoskeag, 1914-22	189
C-1. Number of docketed complaints, by decision and nature of complaint.	214
C-2. Indexes of cost of living in Boston and annual earnings at Amoskeag, 1923-34.	230
D-1. Comparison of average hourly wage rates for specified occupations in cotton-textile manufacturing in Amoskeag, New England, and southern mills, 1924-33.	252
D-2. Relative average hourly wage rates for specified occupations in cotton-textile manufacturing in Amoskeag, New England, and southern mills, 1924, July 1933, and August 1933	254
E-1. Percentage distribution of periods of employment, by length of period and sex of workers, in the cotton and worsted sections, 1923-34	267
E-2. Percentage distribution of periods of no employment, by length of period and sex of workers, in the cotton and worsted sections, 1923-34	268
E-3. Labor turn-over rates for Amoskeag and cotton-textile industry, 1914-34.	270
E-4. Percentage distribution of final separations for specific reasons, by period and sex, 1911-33	272
E-5. Number of weeks of no employment as a percentage of total number of man-weeks available for employment in the cotton and worsted sections, 1923-34.	274
E-6. Percentage distribution of workers, by total weeks of no employment and section, 1923-34.	275
E-7. Percentage distribution of weeks of employment in the cotton and worsted sections in 1934, by number of hours of employment.	277
E-8. Percentage distribution of cotton workers, by total weeks of no employment and degree of skill at longest occupation, 1923-34	279
E-9. Percentage distribution of women in the cotton and worsted sections, by total weeks of no employment and marital status, 1923-34	280
E-10. Percentage distribution of men in the cotton and worsted sections, by total weeks of no employment and marital status, 1923-34	281

Table	APPENDIX TABLES- <i>Continued</i>	Page
E-11.	Average number of Amoskeag workers actually employed as a percentage of the average number on the pay roll, 1925-34	283
E-12.	Actual average weekly number of Amoskeag workers as a percentage of the total number employed during the year in the cotton and worsted sections, 1928-34.	284
E-13.	Percentage distribution by age of a special sample of workers, by employment stratum and sex. . . .	287
E-14.	Percentage distribution by employment stratum of a special sample of workers, by age and sex. . .	288
E-15.	Percentage distribution by length of Amoskeag attachment of a special sample of workers, by sex and employment stratum	289
E-16.	Percentage distribution of married women, by number of dependents and employment stratum. . .	291
E-17.	Distribution of gainfully occupied persons 10 years of age or over in New England cities with populations of 50,000 to 125,000, by sex, 1930. .	293
E-18.	Percentage distribution of final separations, by length of Amoskeag attachment, period, and sex. .	294
E-19.	Distribution of workers by annual earnings and sex, 1923-34	295
E-20.	Median annual earnings of workers, by degree of skill, section, and sex, 1923-34	296
E-21.	Median annual earnings of regular and intermittent workers, 1923-34	298
E-22.	Number of Manchester emigrants over 21 years of age, by industry attachment and sex, 1920-34 . .	301
E-23.	Percentage distribution of Manchester's gainfully occupied population 21 years of age or over, 1930, and of Manchester's emigrants, 1920-34, by sex and age	305
E-24.	Percentage distribution of a sample of Manchester emigrants, by place of immigration, 1920-29 and 1930-34.	307
E-25.	Percentage distribution of Amoskeag emigrants, 1920-34, and final separations, 1933-35, by sex and degree of skill of last Amoskeag job	309
F-1.	Net sales and production costs in the cotton and worsted sections of the Amoskeag Manufacturing Company, 1906 to May 31, 1925.	312
F-2.	Consolidated profit and loss statement of the Amoskeag Manufacturing Company, June 1, 1925-December 24, 1935.	313
F-3.	WPA employment and pay-roll costs for Manchester, September 1935-October 1938.	314

CONTENTS

xvii

APPENDIX TABLES-Continued

Table	Page
F-4. Comparative case load for general relief in 24 New England cities, 1934-38.	315
F-5. Number of men per 100 women at Amoskeag, by nationality, 1917 and 1929	319
F-6. Percentage of men 45 years of age or over at first accession and percentage of men at same age entering skilled occupations, by period.	319
F-7. Percentage distribution of final separations, by age at final separation, period, and sex	320
F-8. Percentage distribution of workers by years at longest occupation, by degree of skill and sex. .	320
G-1. Total hirings of all workers and of sample and percentage of total different persons in sample, by period, 1927-35	325
G-2. Distribution of all workers and those in sample, by section, 1935	326
G-3. Distribution of all workers and those in sample, for the cotton and worsted sections, by department, 1935	327
G-4. Distribution of first accessions of all workers and of those in sample, 1924-27.	328
G-5. Total separations of all workers and of sample and percentage of total separations included in sample, by period, 1927-35	329
G-6. Percentage distribution of all workers and of sample, by important nationalities and period, 1919-29.	330
I-1. Number of cases in which total duration of employment as reported agreed with, was less than, or exceeded actual total duration, by reported tenure group	340
I-2. Comparison of number of actual months of employment with the number reported, by reported tenure group	341
I-3. Comparison of number of jobs reported with the number actually held, by reported tenure group. .	342

PREFACE

America is dotted with cities and towns that can point to better days when they were flourishing commercial or industrial centers. Many a canal and river town lost its locational advantage when the railroads drew off its commerce. Many a rural shopping and marketing center lost most of its trade as automobiles, trucks, and improved roads made larger cities more easily accessible. Deserted towns abound in areas where bonanzas have been exhausted; on the other hand, new discoveries of mineral deposits and new processes that made the exploitation of known low-grade deposits feasible have brought new mining towns into being. Land reclamation and irrigation have brought millions of new fertile acres under the plow, giving rise to new agricultural communities and trading centers. The development and application of steam power and electricity have freed manufacture from dependence on water power and permitted its spread and concentration in localities that offered other advantages.

The decline of the New England region as a center of textile production is a classic example of a locational change of industry in this country. In 1880 the manufacture of cotton goods was concentrated in New England to the extent of about 80 percent of the spindles in the industry. In 1935 its share was less than 30 percent. The old "water power" manufacturing cities of Lowell, Lawrence, New Bedford, Fall River, Holyoke, Nashua, and Manchester declined in employment opportunity and population as Gastonia, Greensboro, and other southern cities and rural areas developed. Silk manufacturing migrated from New England to New York in the 1860's and from there to New Jersey about 1870. Two decades later the industry began another shift, this time to the steel and coal towns of Pennsylvania. Only in the manufacture of woollens and worsteds has New England retained its preeminence, although even here its relative importance has declined in favor of New York, New Jersey, Pennsylvania, and, to a small extent, the South.

These shifts have sometimes involved transfers of capital and labor; they have also meant that production facilities have been permitted to deteriorate in one locality while new facilities were being erected in others, and that experienced

workers remained idle while new labor reserves were being tapped and a new labor supply was being trained. But whereas much of the capital accumulated as a result of profitable activity in a particular locale was transferable, the mobility of labor was highly restricted. Moreover, the decision to withdraw the profits of one enterprise and to invest them elsewhere could often be followed by a protracted period of planned activity during which the transfer was gradually accomplished; the final liquidation of the enterprise, however, usually occurred with a suddenness that found the workers who looked to it for employment unprepared with alternative jobs and rarely with sufficient financial provision for the necessary readjustments without serious hardships and resort to borrowing from family and friends or to seeking public assistance.

The shifting concentration of textile production resulted in relatively few employment dislocations so long as markets were expanding. The new mills in the new areas were generally additions to rather than a displacement of existing capacity. But eventually every branch of the textile industry became over-equipped in relation to the demand for its products. Severe competition also developed between the various textile fibers: cotton versus rayon, rayon versus silk, woolens versus worsteds, and single fibers versus combinations of fibers. Although few major changes in mechanical equipment have occurred in textile manufacture since the turn of the century, there has accumulated a host of minor improvements. These slight changes in mechanical and operating efficiency seemed unimportant while markets were expanding, but they became major considerations when expansion ceased. For a variety of reasons the modern plants in the newer areas were more easily able to adopt the innovations. Many of the older plants were closed, converted to different operations, or partly dismantled and moved. The new technology with its increased automatization of operations had reduced the skill requirements of many textile occupations and accentuated the possibilities for the quick training of "green" labor in the new low-cost centers.

Numerous communities in New England lost their principal economic activity. Thousands of skilled textile workers were left stranded when mills either moved southward or went out of existence because of either their inability to compete with

southern manufacturers or their unwillingness to continue to risk their investments in a market that promised to be less productive of profits than formerly.

The situation described in this study is in most respects typical of the shut-downs which occurred in New England during the last two decades. The report represents a case study of the effects of the shut-down of a single enterprise, the Amoskeag Manufacturing Company, which had been the economic backbone of a major New England city - Manchester, New Hampshire. It shows what the owners' decision to withdraw from manufacture the capital they had accumulated by producing cotton and woolen goods in Manchester has meant in terms of unemployment, loss of income, migration, and general disorganization of the Manchester labor market. It also raises questions concerning the social responsibility of business. What is an appropriate basis for a decision to liquidate an enterprise whose employment or unemployment largely controls the prosperity of a city? Over the course of more than a century the people of Manchester had invested in homes and built a community with schools and churches and streets and other community enterprises that go with an American city, yet they had no say in a matter that affected them so vitally. In the case of railroad operation, for example, public-utility commissions have gone beyond the question of profitability to the owners and have given weight in their decisions on abandonments to the interests of communities, to other business interests served, and to the equities of labor. Their criterion is the public welfare.

The National Research Project is indebted to many individuals and agencies for assistance in the preparation of this report. The willingness of the trustees of the Amoskeag Manufacturing Company to release the company records to the Hamilton Smith Memorial Library of the University of New Hampshire made possible this study with its wealth of intimate detail. The library graciously made the material available to the Project. The office of Manchester's mayor, through its secretary Yvan Caron, kindly arranged for office space for the field staff in Manchester's City Hall and in many other ways was most helpful. The Division of Unemployment Compensation, the Minimum Wage Division, the Department of Public Assistance, and the central office as well as the Manchester office of the New Hampshire

Employment Service, all agencies of the State of New Hampshire, aided greatly by making available much statistical information. Similar assistance was given by the Department of Charities of both the Manchester city and the Hillsborough county governments, by the Board of Registrars of Voters in Manchester, and by the WPA for the State of New Hampshire. Amoskeag Industries, Incorporated, was also generous with the information in its possession, as was the United Textile Workers of America. The National Research Project is, of course, alone responsible for the content of the report and for the conclusions reached.

The report was prepared by Daniel Creamer and Charles W. Coulter under the supervision of Irving Kaplan. Dr. Coulter obtained for the Project access to the records of the Amoskeag Manufacturing Company and assembled some of the background information for the study. Dr. Creamer analyzed the data and prepared the report. The field work was conducted jointly by the authors under the administrative supervision of Dr. H. Paul Douglass. The Bureau of Research and Statistics of the Social Security Board collaborated in the study by making available the services of Daniel Creamer. Ida C. Merriam of the Bureau assisted in planning the field work. Gladys L. Palmer made a number of suggestions in the organization and writing of the final draft of the report. The manuscript was edited and prepared for publication under the supervision of Edmund J. Stone.

DAVID WEINTRAUB

PHILADELPHIA

November 3, 1939

CHAPTER I

INTRODUCTION

In the latter part of August 1839, 8 years after the organization of the Amoskeag mills at Manchester, New Hampshire, Thoreau, the essayist, spent a week on the Concord and Merrimack Rivers. His passage through the Amoskeag canals along the Merrimack was swift in order to get "out of hearing of the hammer which was laying the foundation of another Lowell" ¹ Had this boat trip been repeated 97 years later, one doubtless would have discovered that the Manchester scene still bore a close resemblance to that of Lowell, but this time the sound of the hammer would be that of the auctioneer liquidating mill property. For the Amoskeag Manufacturing Company, which claimed to be the world's largest textile company, ceased manufacturing operations in September 1935, and in August of the following year the master in bankruptcy court ordered its liquidation.

To relate in detail the 105 years of the corporate life of this company would be, it is safe to say, an enlightening case study in an important phase of American economic history. Such a task, however, is not within the province of this report. This study is concerned with Amoskeag's more recent history, the period of Amoskeag's decline and dramatic closing and their effect on the textile workers of Manchester, who constituted a large fraction of the 75,000 inhabitants of New Hampshire's Queen City.

A detailed recital of this industrial case history was undertaken in the belief that the decline and collapse of the Amoskeag Manufacturing Company and the concomitant social consequences

Note.— The authors wish to acknowledge their indebtedness to the many members of the National Research Project staff who have aided in this study. Deserving of special thanks are Arthur J. Kennedy, Michael E. Ahern, Anthony W. Debski, and Norma Mac Rury, who as long-time Amoskeag employees or long-time Manchester residents, or both, had acquired a fund of knowledge on the local situation which they were ever willing to place at our disposal. Only in this manner were we able to minimize instances of misinformation on local matters. We are grateful to Marvel Keller for help in preparing instructions for the transcription, editing, and coding of the Amoskeag employment records; to Charles M. Booth and Harold W. Northrop for supervision of editing and coding of these records; to Murray P. Pfefferman for supervision of the mechanical tabulations; and to Margaret Snowden, Henry W. Schultz, and Harold Baron for drafting the charts. To Morris J. Slonim and, more particularly, to William F. Barnum, who performed a host of statistical and other research tasks, special thanks are due.

¹Henry D. Thoreau, *A Week on the Concord and Merrimack Rivers* (Boston, Mass.: Houghton Mifflin Co., 1893), p. 323.

may be utilized for the study of urban textile New England in decline. It is expected that a detailed analysis of Amoskeag will shed light on the more important considerations that transformed one of the country's first industrialized regions into one of its first "depressed areas" of an industrial character. What were the forces at work to make "a manufacturing town that shall be the Manchester of America" keep pace, with a certain lag both in the rise and decline, with the Manchester of the Old World?² What types of adjustment do workers make who are economically stranded in a depressed area, and what adjustments may they hope to make? What factors does a community have to take into consideration in attempting to attract new and expanding industries into an old, specialized manufacturing center? These are the basic questions to which this inquiry is addressed.

The same group of Boston financiers who had established textile mills at Waltham, Lowell, and Nashua organized the Amoskeag Manufacturing Company in 1831. Accordingly, its development throughout most of its corporate existence displayed no uniqueness since it was of a piece with the other mill towns in the Merrimack Valley and adjacent areas of northern New England.³

In its manufacturing aspect, the pattern consisted of the construction of large integrated mills, combining spinning and weaving, with sales effected through a single commission house. The company initiated a paternalistic labor policy, especially with respect to housing, in order to attract the daughters of native farmers to the mill. Its control of water power and its large landholdings transformed the enterprise into something more than a textile plant. In a very real sense, New England textile mills were much concerned with real-estate development and promotion, and in this respect the Amoskeag Manufacturing Company was no exception.

To this end, the company obtained exclusive control of the Merrimack water power in this locality and ownership of the

²On June 13, 1810, the legislature of the State of New Hampshire authorized the change of name from Derryfield to Manchester. Popular tradition gives Judge Blodget credit for this name. He is reported to have said, "As the country increases in population we must have manufactures, and here, at my canal, will be a manufacturing town that shall be the Manchester of America." George Waldo Browne, *The Amoskeag Manufacturing Company* (Manchester, N. H.: Amoskeag Manufacturing Co., 1915), p. 25.

³For the extent of interlocking directorates among the early New England textile corporations, see Vera Shlakman, *Economic History of a Factory Town: A Study of Chicopee, Massachusetts*, "Smith College Studies in History, Vol. XX, Nos. 1-4, Oct. 1934-July 1935" (Northampton, Mass.: Smith College Council of Industrial Studies), pp. 39-42.

farm land on which the growing town of Manchester was to be built. The company's interest in manufacturing was not solely in the possibilities of profitable textile operations. Of equal importance was the fact that the expansion of manufacturing activities created an opportunity for selling machinery made in Amoskeag's shops and the leasing of water power, while the additions of new workers to Manchester's population resulted in appreciation of the value of Amoskeag's landholdings.

Through its control of these essentials the company determined the community's industrial development;⁴ because of its volume of business, reputation, and stability, both alleged and real, its voice weighed heavily in city government, chambers of commerce, city planning, and, on occasion, even in the legislature of the State. Accordingly, the rise and fall of Amoskeag's fortunes are reflected in the fortunes of the city.

Nor was the company's corporate structure exceptional. From the start, along with the other mills that served as its prototype, the company possessed all the attributes of "big business", usually associated with a more recent period in corporation history. At no time, for example, did Manchester residents own any considerable portion of Amoskeag stock: from its early years, the organization was characterized by absentee ownership. "Control" was exercised by a board of directors or trustees who not infrequently had but small investments in Amoskeag securities. With few exceptions, the trustees were prominent financiers and merchants of the Boston area who had no detailed familiarity with manufacturing processes and for whom Amoskeag represented only one of a number of business interests. As a consequence, the treasurer was the dominant personality in the company's affairs. The fact that even this post was not regarded as a full-time job probably explains why his office was located in Boston during the entire life of the corporation. The actual supervision of mill operation was entrusted to an agent, a salaried official who represented the board of directors and resided in Manchester. Thus to the problems of absentee ownership were added those of "remote control."

In all this, it must be emphasized again, Amoskeag and Manchester were typical of most of the other inland mills and mill towns, especially those north of Boston. The rise of

⁴For many years, and to some extent until 1935, plants desiring to locate in Manchester were directly or indirectly dependent on Amoskeag's approval.

Manchester from a mere village at the foot of the Amoskeag Falls to a city of 70,000 to 80,000 persons, in broad outline at least, did not differ from the often-told story of the development (say) of Lowell.⁵

It does not follow that the specific reasons for Amoskeag's decline, which began about 1911, and its adjustments to its difficulties are identical with those of the other mills for which it is a type case; the history of Amoskeag does possess some exceptional features. The most obvious and important of these is size - it claimed to be the largest textile mill established at one location.

Its size and absentee ownership and control were not conducive to timeliness of adjustments in decisions to reequip, to alter the character of production, or to reorganize marketing methods. Moreover, when these decisions were made (usually after much delay), a centralized management militated against anything but a clumsy prosecution of the decisions since the entire set-up was lacking in flexibility. The nature of the separation of the "control" from the management also encouraged fluctuations in financial policy.

The protection of the interests of investors at the expense, sometimes, of operating efficiency was encouraged by the presence of a large cash surplus, which may be attributed rather directly to its scale of operations. A very substantial portion of this surplus was accumulated during the war years. If Amoskeag had not had its tremendous capacity, it would not have been able to make such effective use of the short-lived boom. With a smaller surplus, a policy of gradual liquidation might have appeared less tempting. In this respect, too, Amoskeag may be regarded as atypical because of its size.

The same may be said to apply to the social consequences of the decline and failure of the company. The decline and closing of the mills affected more persons than had been affected by the shut-down of any given textile corporation in the neighboring textile cities.

It is important to notice, however, that all these deviations of Amoskeag from what is alleged to be representative behavior are deviations of degree and not of kind. If this be so, it

⁵For this reason the rise of Amoskeag and Manchester will not be recounted. Those interested in the development of Amoskeag and Manchester will find a chronicle of their growth in Browne, *op. cit.*

would not be merely making a virtue out of necessity to claim that for these very reasons this particular case possesses methodological advantages. It may be properly contended that a study of extreme manifestations is frequently an effective method of making "characteristic" behavior understandable.

Although the initial reason for undertaking this inquiry is the bearing of the material on the development of a depressed industrial area, the results of the survey indicate that the material sheds light on still broader problems. It is characteristic of modern business enterprise to withdraw factors of production from a declining industry and transfer them to expanding industries. Cotton manufacturing in New England after 1900 was such an industry, and the Amoskeag trustees attempted to effect such a transfer. If one assumes complete divisibility and mobility of all the factors of production, a strong case may be made that such a transfer would increase the national dividend. In the absence of complete mobility of production factors, however, important economic maladjustments are created. A considerable portion of the Amoskeag capital, for example, was divisible since it was held as quick assets. Manchester labor, on the other hand, lacked this divisibility since it was relatively immobile, in terms both of occupation and location. In these circumstances, the transfer of capital was tantamount to the creation of an economically stranded population.

PLAN OF STUDY AND CHARACTER OF DATA

To set forth the various factors that made for Amoskeag's decline within the framework of the considerations outlined above, it is necessary to review the more important influences that have conditioned the industry's recent development, including the shift of the cotton industry to the southern seaboard. The next chapter discusses the more recent difficulties that have beset the textile industry and analyzes Amoskeag's handicaps in the competitive struggle.

Chapter III shows how these difficulties, general and specific, affected Amoskeag's performance. Performance from the point of view of the stockholders is measured in terms of profits and dividends. By means of the company's ledgers and certified statements prepared for the bondholders' committee, this record is reconstructed beginning with the year 1906.

The source of the company's large surplus is explained, as well as the pressure of the post-war losses that led to changes in the company's financial policy. The latter is based on the evidence in a report made by a special master appointed by the bankruptcy court and from the testimony taken by a Congressional investigating committee. These sources also provide information on the subsequent financial involvements that led to the closing of the mills.

From the workers' point of view performance is measured in part by the volume of employment. This is indicated by the statistical data on production and employment which are introduced into the financial discussion in order to make clear the interrelations of production, employment, and profits.

The fourth chapter is concerned with the Amoskeag shut-down and its immediate effects. The major data for this chapter were obtained in a special survey of a thousand former Amoskeag workers who were interviewed a year or more after the loss of their last Amoskeag jobs in 1935. The occupational characteristics of the workers displaced by the shut-down and their success in securing reemployment in Manchester and elsewhere are described. The effect of the closing of the mills on Manchester's relief rolls is also considered.

The concluding chapters are concerned with the community's efforts to attract new and diversified industries to Manchester and the economic considerations which affect the location of such industries in this area.

A series of supplementary appendixes presents in considerable detail the history of the labor supply of the company and the effects of Amoskeag's decline upon the workers. Specifically, the character of their employment, their earnings, and general labor-relations problems are described. The major data are Company welfare bulletins, reports of trade-union grievances, minutes of company-union meetings, and personnel and pay-roll records. In appendix A an attempt is made through analysis of historical material on the company's labor supply to provide a broad perspective for viewing Amoskeag's decline. Appendixes B, C, and D deal with labor relations during distinct periods in Amoskeag's history after 1911. In appendix E there is a description in statistical terms of the effects of the decline on labor turn-over, the pattern and volume of employment and

unemployment, annual earnings, and the extent and character of emigration from Manchester.

Concluding appendixes (F-I) of a technical nature present supplementary tables and describe the transcribed pay-roll and income-tax records of the company and the sampling methods used. Definitions of terms used in a field survey and the reliability of employment information, as secured from both interviews with workers and pay-roll information for the same persons, are also discussed.

CHAPTER II

COMPETITIVE PROBLEMS AT AMOSKEAG AND IN THE TEXTILE INDUSTRY

GENERAL TRENDS

The locational shift of the cotton-textile industry to the southern States was due in large part to the availability of a cheaper labor supply than could be attracted to New England and it coincided with the introduction of automatic looms in the industry. The shift created serious industrial maladjustments, the most important of which was the development of excess capacity - a problem that has bedeviled the industry for a long time.

Excess Capacity

This was brought about largely because the locational shift of the industry southward did not involve migration of the industry in the literal meaning of the word. The New England mill owner did not dismantle his plant and ship his equipment to a southern location, as has so often been the procedure in the hosiery industry, for instance, in recent years; nor did he usually establish a southern mill with modern equipment and close down the New England plant. In either case, excess capacity would not have become such a serious problem.

That it did reach serious proportions was due to the fact that the original shift occurred through southern entrepreneurs organizing textile companies in their own localities. To be sure, they were assisted by northern capital, but it was not the capital of the New England textile-mill owners. Rather, the capital was supplied by the manufacturers of textile machinery and by the commission houses and converters.¹ In this manner the expansion of the industry in the South initially was a net addition to the industry's capacity rather than the replacement of capacity abandoned or transferred from elsewhere.

¹Stephen J. Kennedy, *Profits and Losses in Textiles* (New York: Harper & Brothers, 1886), pp. 6-8.

The rapid development of the industry in the South may be seen in table 1. In 1870 the active spindleage in the South amounted to only 5.9 percent of the active spindleage in New England; the percentage was 6.5 in 1880. By 1890, however, this percentage had increased to 14.4, and 10 years later to 33.2. The shift continued at a rapid rate until in 1905 the southern States had about half (53.7 percent) as many active spindles as New England; after the succeeding 5 years they had two-thirds as many. It is patent that even prior to the

Table 1.- NUMBER OF ACTIVE SPINDLES IN THE UNITED STATES,
NEW ENGLAND, AND SOUTHERN STATES, 1870-1935^a

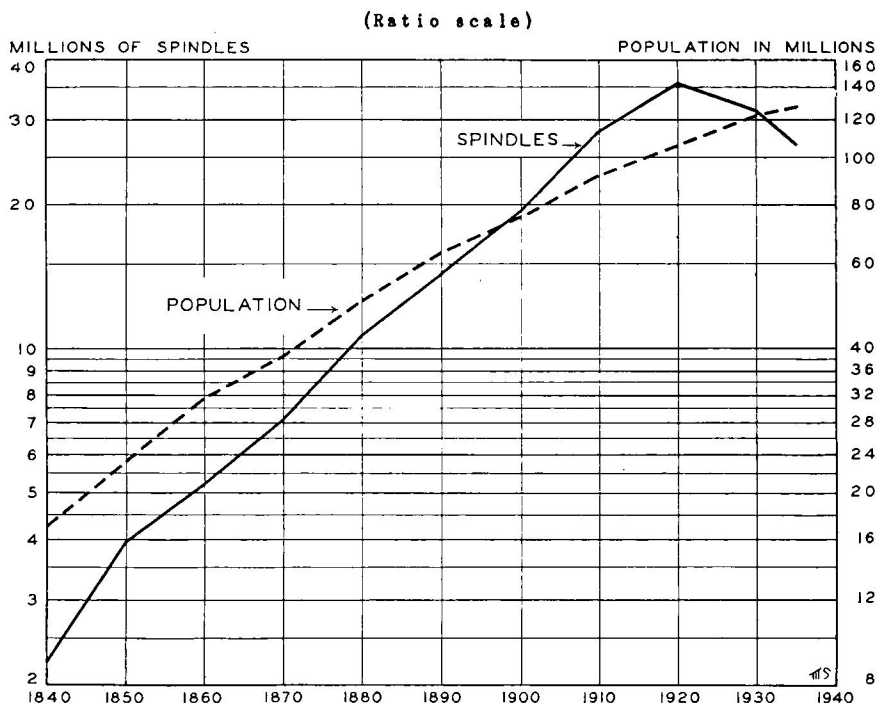
(Thousands)

Year	United States	New England	South	South as percent of New England	Year	United States	New England	South	South as percent of New England
1870	7,132	5,498	327	5.9	1908	27,505	15,329	10,201	66.5
					1909	28,018	15,592	10,429	66.9
1880	10,653	8,632	561	6.5	1910	28,287	15,735	10,494	66.7
1883	12,660	n. a.	n. a.	-	1911	29,523	16,511	11,085	67.1
1884	13,300	n. a.	n. a.	-	1912	30,579	17,140	11,583	67.6
1885	13,375	n. a.	n. a.	-	1913	31,520	17,311	12,227	70.6
1886	13,400	n. a.	n. a.	-	1914	32,108	17,408	12,711	73.0
1887	13,500	n. a.	n. a.	-	1915	31,964	17,101	12,956	75.8
1888	13,500	n. a.	n. a.	-	1916	32,806	17,474	13,382	76.6
1889	14,080	n. a.	n. a.	-	1917	33,889	17,761	14,156	79.7
1890	14,384	10,935	1,570	14.4	1918	34,543	17,985	14,529	80.8
1891	14,640	n. a.	n. a.	-	1919	34,931	18,066	14,486	80.2
1892	15,200	n. a.	n. a.	-	1920	35,481	18,287	15,531	84.9
1893	15,550	n. a.	n. a.	-	1921	36,047	18,388	15,709	85.4
1894	15,700	n. a.	n. a.	-	1922	35,708	17,939	15,906	88.7
1895	16,100	n. a.	n. a.	-	1923	36,260	18,054	16,310	90.3
1896	16,650	n. a.	n. a.	-	1924	35,489	17,066	16,944	99.3
1897	17,150	n. a.	n. a.	-	1925	35,032	15,975	17,292	108.2
1898	17,450	n. a.	n. a.	-	1926	34,750	15,526	17,574	113.2
1899	18,100	n. a.	n. a.	-	1927	34,410	14,995	17,894	119.3
1900	19,472	13,171	4,368	33.2	1928	33,570	13,815	18,282	132.3
1901	20,200	n. a.	n. a.	-	1929	32,417	12,537	18,541	147.9
1902	21,400	n. a.	n. a.	-	1930	31,245	11,351	18,586	163.7
1903	22,000	n. a.	n. a.	-	1931	28,980	9,655	17,953	185.9
1904	22,850	n. a.	n. a.	-	1932	27,272	8,566	17,529	204.6
1905	23,687	14,202	7,631	53.7	1933	26,895	8,206	17,829	217.3
1906	25,250	14,408	8,995	62.4	1934	27,742	8,458	18,408	217.6
1907	26,375	14,913	9,528	63.9	1935	26,701	7,763	18,096	233.1

^a Adapted from Stephen J. Kennedy, *Profits and Losses in Textiles* (New York: Harper & Brothers, 1936), pp. 235-6. All data are from U. S. Department of Commerce, Bureau of the Census bulletins on *Cotton Production and Distribution*. Data represent spindles active at any time during year ending July 31 for years prior to 1915 and August 31 for years since 1915.

n. a. Data not available.

Figure 1.- POPULATION OF THE UNITED STATES AND NUMBER OF
ACTIVE SPINDLES IN THE COTTON-TEXTILE
INDUSTRY, 1840-1935



Figures on spindles adapted from
Stephen J. Kennedy, *Profits and
Losses in Textiles* (New York:
Harper & Bros., 1936), pp. 235-6.
Figures on population based on
Census of Population data

WPA - National Research Project

L-41

outbreak of the World War the locational shift of cotton textiles to the South had assumed considerable proportions.

In addition, divergencies in the rates of growth of the industry, population, and consumption of textiles should be noted. The first two are depicted in figure 1. Although as early as 1870 the rate of increase in active spindlage exceeded the rate of population growth, this difference was particularly sharp from 1890 to 1920. After this date there was a radical reversal in the decennial rates, with the spindlage rate actually becoming negative while population continued to increase. Unless there had been a substantial increase in per-capita consumption of cotton textiles, the rate of expansion of the industry up to 1920 could result only in surplus physical capacity. Judging by the few scattered figures available, no such increase in consumption took place. For example, per-capita mill consumption of lint cotton in 1911-14

on the average was 12.2 kilograms per person compared with 13.8 in 1927 and 12.8 in 1929. Comparable figures for all textile fibers except jute were 13.5, 15.4, and 14.5.²

This excess capacity created a type of intense competition that leads to instability, and this characterized the industry even in the decade preceding the war.

Early in the century Amoskeag officials expressed their fears of this competition. The earnings record of Amoskeag for these years as analyzed in the next chapter indicates that it was not immune to the industry-wide trends and justified the fears of its officials.

The war prosperity and the intensity of the 1919-20 boom concealed the presence of the maladjustment of capacity in the industry. It reappeared, however, with intensified force in the earlier years of the post-war adjustment, for a part of the high profits of the war years was reinvested. As a consequence, the largest number of active spindles in the entire industry was reported in 1923, although the New England branch of the industry reached its peak spindleage two years earlier. In subsequent years the liquidation in New England was of sufficient volume to more than offset the expansion of the industry in the South, which continued to 1930, but it was not of sufficient magnitude to materially reduce excess capacity in the industry as a whole. To the reappearance of this basic difficulty in the post-war years must be added a number of new problems, all of which combined to make the road of successful competition in cotton textiles a hard one.

Competition of Substitute Textiles

One difficult problem was the competition of other textile fibers, particularly rayon, which had accounted for only 0.1 percent of the mill consumption of important textile fibers in the United States in the period 1911-14, but which represented 5.5 percent in 1934.³ This development was not achieved by diminishing the share of the textile market served by the cotton industry. Rather it served only to impede the

²Computations presented in *The World Textile Industry: Economic and Social Problems*, "Studies and Reports: Series B (Social and Economic Conditions) No. 27" (Geneva, Switzerland: International Labour Office, 1937), vol. I, p. 165. (Report to the Tripartite Technical Conference held in Washington, D. C., April 1937.)

³U. S. Congress, Senate, *Cotton Textile Industry*, S. Doc. No. 126, 74th Cong., 1st sess., 1935, p. 83.

expansion of the cotton market. Cotton's share remained at about 74 percent of all important textile fibers throughout the 24-year period 1911-34.⁴

Rayon, however, made serious inroads into certain special markets that usually had been reserved for the cotton industry, and the latter was able to retain its relative position only by developing new outlets for its products. The markets in which encroachments had been made were mainly in wearing apparel. This was to the disadvantage of the New England mills since "probably a greater relative proportion of the goods manufactured in New England goes into consumer markets than is the case with the goods manufactured in the cotton-growing States. More of the goods manufactured in New England are of the finer types and it is from this range that the larger amount of consumer goods originates."⁵ On the other hand, the expanded use of cotton in the household and in the industrial and agricultural fields benefited primarily the southern mills.

The increased dependence on industrial consumption had the disadvantage of imparting greater instability of operations to an industry that already was so characterized. This results from the fact that industrial activity generally undergoes a greater amplitude of fluctuations than do the activities that enter directly into consumer markets.

The Style Factor

Instability was also promoted by the added importance of the style factor in the post-war years. The cotton industry was able to retain a share of the wearing-apparel market only by competing on a style basis. The inability to style gingham - which had been Amoskeag's mainstay - because of its rigidity in design resulted in a tremendous decline in its use. This disadvantage did not attach to print cloth, which made wide gains, since it lent itself to new finishing and high styling.

The frequency of fashion changes, which is closely associated with the seasonal problem, introduced additional risks to the manufacturers, particularly the larger manufacturers such as Amoskeag and many others in northern New England who did their own finishing. When styles change frequently, it is dangerous

⁴*Ibid.*, p. 82.

⁵*Ibid.*, p. 87.

to manufacture for inventory; to manufacture for order makes for wide fluctuations in activity. Even when a new design or pattern has been introduced, it is difficult to estimate the seasonal requirements from its initial reception. And in a situation of rapid style changes a miscalculation involving a carry-over of stock is most serious since it can be liquidated only at a considerable loss which, if it does not endanger the mill's solvency, makes for a general price weakness that affects many mills and converters.

Speculation in Raw Materials

Another source of instability in the industry was the speculative situation in the raw-material market, particularly in the first half of the twenties.

The small cotton crops of 1921, 1922, and 1923 had gradually forced the price of cotton up from the depression low of 11.8 cents in March, 1921, to 35.8 cents in December, 1923. This price rise had been practically continuous over these three years, so that the mills had been able to profit enormously from appreciation in value of inventories. The fact that mill profits during these years were largely speculative and were due to exceptional conditions in the cotton-growing area which were bound to be eventually overcome, does not seem to have made much impression upon cotton mill management. . . . In other words, the entire period subsequent to the close of the War, up to 1924, was one of exceptional conditions, beginning with the post-War boom and then continuing after a brief collapse in the winter of 1920-21, from which it was rescued by this progressive price rise of cotton.

It was therefore not until 1925 that the industry returned to what might be considered a normal operating basis. It would be expected that under such conditions there would be a renewal of the decline in mill earnings which . . . was characteristic of the years immediately preceding the War. This is precisely what happened.⁶

Faulty Accounting Procedures

A factor contributing to the industry's difficulties in these years was the faulty accounting procedures which had been practiced in previous years. Of special importance in this

⁶Kennedy, *op. cit.*, p. 128.

connection was the general disregard for depreciation reserves. "It is clear today that in many cases the earnings reported in earlier years would not have been so classified had proper depreciation reserves been set up. Otherwise, mills would not have found themselves with an outdated plant on their hands and no capital to put it into competitive condition."⁷

The Relation of Foreign Trade

The expansion of foreign markets, moreover, did not prove to be an effective alternative to the failure to expand markets at home. Much the same situation obtained in the foreign markets as in the domestic ones, at least up to the great depression; that is, the industry continued to export about the same fraction of its annual production (6 to 8 percent) up to 1931 as in the pre-war years (table 2).

The difficulties in the way of expanding foreign markets were several. Probably most important was the manufacture of cotton textiles by the countries that formerly imported cotton cloth. This resulted not only in the withdrawal of the domestic textile markets of these countries from the field of international competition, but it also served to make for keener international competition in the remaining markets since the newer manufacturing centers tend to be areas of low labor costs. Higher tariffs over a wider area, other

Table 2.- QUANTITY OF COTTON CLOTH EXPORTED, IMPORTED, AND PRODUCED IN THE UNITED STATES, 1910-33^a

Year	Quantity (square yards)			Exports as percent of production	Imports as percent of production
	Exported	Imported	Produced		
1910-14 (average)	398,574,000	52,820,780	6,581,500,000	6.1	0.8
1923	464,520,397	208,146,780	7,247,719,142	6.4	2.8
1925	543,316,851	109,580,704	6,693,129,462	8.1	1.6
1927	560,042,677	63,562,680	7,842,036,580	7.1	0.8
1929	539,355,800	55,763,923	7,436,326,752	7.3	0.7
1931	360,585,679	33,554,446	6,331,053,513	5.7	0.5
1933	299,569,298	38,853,166	7,310,594,300	4.1	0.5

^aThe export figures for 1910-14 were adapted from *Statistical Abstract of the United States: 1925* (U. S. Dept. Com., Bur. For. and Dom. Com., 1926), p. 618; import and production figures for 1910-14, from same for 1919 (1920), p. 436. Figures for 1923-33 were secured from U. S. Congress, Senate, *Cotton Textile Industry*, S. Doc. No. 126, 74th Cong., 1st sess., 1935, p. 106.

⁷*Ibid.*, p. 130.

trade restrictions resulting from the desire for national self-sufficiency, and currency depreciation served the same end, particularly in the depression years.

Imports into the United States, however, have not only been negligible during these years but have represented a declining fraction of domestic production, the highest percentage being 2.8 in 1923. If regard were had for certain types of cloth, the fraction imported doubtless would be a little higher. The case given the widest publicity has been the imports of Japanese print cloth. In 1935 such imports amounted to only 3 percent of America's domestic production of print cloth, according to an estimate in the Cabinet Committee's report.⁸ Its effect, however, very probably has been greater than is indicated by the smallness of the percentage since, in some instances, domestic producers were obliged to lower prices in order to meet this competition.

These, in brief, were the major factors that conditioned the cotton-textile industry in general in the years following the war. In summary: "It was the operation of the basic factor of overexpansion, coupled with style developments during the twenties, which heightened the competition for the existing market and forced down mill margins. To this was added the artificial overcapacity created by the extension of double-shift operation in the South. . . . where profits have been consistently made during this time, [they] have been largely products either of specialized machinery or patented processes, or the products of exceptionally well managed, efficient mills."⁹

In this competitive struggle the New England mills were at a special disadvantage. They not only operated with higher wage rates than did the mills in the South, but they also had the additional handicap of the accumulated obsolescence both of equipment and management practice. Some of these special handicaps, which represent evidences of failure to solve the basic problems, can be illustrated by Amoskeag's experience.¹⁰

⁸*Cotton Textile Industry*, p. 104.

⁹Kennedy, *op. cit.*, pp. 128-9.

¹⁰It is worth noting that the rate of Amoskeag's decline was less rapid than that of cotton textiles in New England as a whole. Thus, while in 1925 Amoskeag's cotton section accounted for 3.7 percent of all employment in the cotton-goods establishments of New England, the percentage steadily increased until it stood at 5.1 in 1933. The same relationship could be inferred, of course, from the fact that Amoskeag continued operations throughout all the years during which many mills in the region were going out of business and were not being replaced by new mills.

AMOSKEAG'S COMPETITIVE POSITION

Obsolescence of Equipment

It is generally conceded that among the competitive disadvantages under which the New England textile mills have operated has been the factor of obsolescence of equipment. Improvements in textile machinery, particularly the perfection of the automatic loom, coincided with the shift of the industry to the South Atlantic States, with the result of an increase in productive capacity instead of a substitution of newer machinery for the old equipment. As recently as 1929 the percentage of automatic plain looms to all plain looms in four southern States was 80 as compared with 59 percent in four New England States. In the case of fancy looms the respective percentages were 67 and 33.¹¹ Little is known, however, about the actual age of equipment either in place or in use at a given time.

Amoskeag's cotton section, it appears, was no exception to the New England rule. From the manufacturing point of view obsolescence probably constituted its most serious difficulty. This is suggested not only in the opinion of company officials expressed on several occasions but is also clearly indicated by an inventory of equipment in place taken in August 1934.

There exists a company record which itemizes in detail all the machinery in place in the cotton section as of August 15, 1934, and the year of manufacture of most of the important types of these machines.¹² These data make it possible to determine the age of the machinery on the inventory date. For the more important types of equipment this is shown in table 3.

It is most significant that, of the machinery in place in August 1934, about one-quarter of the cards, intermediate-frame spindleage, fly-frame spindleage, and spinning-frame spindleage had been manufactured between 1881 and 1900; that is, they were 35 to 54 years old. Almost three-quarters of all spooler spindleage and more than one-half of all slubber-frame spindleage were of this age. However, much less than 1 percent of all

¹¹*Cotton Textile Industry*, p. 118.

¹²The important types of machines for which there are insufficient data on the year of manufacture are twistors, warpers, and slashers. In those cases in which the data are otherwise adequate, the following percentages bear no date of manufacture: 3.5 percent of all cards, 9.7 of all slubber frames, 12.7 of all intermediate frames, 2.0 of all fly frames, 8.1 of all spinning frames, 15.1 of all spoolers, and 2.0 of looms. When the date of manufacture is unknown, the presumption is that the machinery is old. However, in the subsequent analysis no use is made of this presumption.

**Table 3.- DISTRIBUTION OF MACHINERY IN PLACE IN DEPARTMENTS OF THE COTTON SECTION, AUGUST 1934,
BY DATE OF MANUFACTURE^a**

Department and machinery	Total, all years		1881-90		1891-1900		1901-10		1911-20		1921-30		1931-34	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
Carding														
Cards	2,063	100.0	237	11.5	239	11.6	1,126	54.6	438	21.2	23	1.1	0	-
Slubber frames (in spindles)	8,914	100.0	3,064	34.4	1,824	20.5	1,908	21.4	1,944	21.8	174	1.9	0	-
Intermediate frames (in spindles)	40,646	100.0	7,240	17.8	3,024	7.4	17,400	42.8	12,984	32.0	0	-	0	-
Fly frames (in spindles)	57,488	100.0	6,336	11.0	8,960	15.6	33,654	58.6	2,208	3.8	6,320	11.0	0	-
Spinning														
Spinning frames (in spindles)	465,443	100.0	29,960	6.4	76,619	16.5	245,728	52.8	89,808	19.3	23,328	5.0	0	-
Spooling														
Spoolers	10,774	100.0	6,960	64.6	824	7.6	1,680	15.6	1,050	9.8	260	2.4	0	-
Weaving														
Looms (in picks per second)	2,069,358	100.0	0	-	4,472	0.2	367,216	17.8	1,200,602	58.0	311,980	15.1	185,088	8.9

^aBased on an NRP tabulation of company records.

looms (measured in picks per second) were this old. Moreover, from 68 to 88 percent of the important types of machines, with the exception of looms, had been manufactured by 1910, giving a minimum age of about 25 years on the inventory date. Of the looms, only 18 percent had been manufactured by 1910; more than half of this equipment had been manufactured between 1911 and 1920.

These figures may be compared with an estimate of the date of installation of all spinning-frame spindles and looms in the cotton-goods industry, given in table 4.

**Table 4.- DISTRIBUTION OF SPINNING-FRAME SPINDLES AND LOOMS
IN THE COTTON-GOODS INDUSTRY IN 1935,
BY DATE OF INSTALLATION^a**

Date of installation	Number	Percent
Spinning-frame spindles		
Total	30,500,000	100.0
Before 1900	5,000,000	16.4
1900-09	10,500,000	34.4
1910-19	8,600,000	28.2
1920-34	6,400,000	21.0
Looms		
Total	562,083	100.0
1900-04	63,764	11.3
1905-09	83,150	14.8
1910-14	117,035	20.9
1915-19	93,489	16.6
1920-24	97,209	17.3
1925-29	76,039	13.5
1930-34	31,397	5.6

^aData based on A. F. Hinrichs, *Wages in Cotton-Goods Manufacturing* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 663, Nov. 1938), pp. 49-52. The estimate is adapted "from unpublished manuscript of Bureau of Labor Statistics by George Sommaripa. Source of the estimate confidential, but estimate accepted as reasonable by leaders of the industry." Mr. Sommaripa's manuscript is based on a study conducted by the WPA National Research Project in cooperation with the Bureau of Labor Statistics. *Ibid.*, pp. 48-9.

The relative newness of the Amoskeag looms is explained by the fact that the automatic loom was not perfected until toward the turn of the century. The difference in efficiency, especially in the manufacture of staples, was so large that it

made the older-type loom obsolescent. Another consideration at Amoskeag was the construction of two new mills, the Coolidge Mill and the New Bag Mill, between 1911 and 1920. To the extent that these mills represented additions to productive capacity, one would expect the installation of new machinery.

After the strike of 1922, negligible amounts of machinery were purchased, with the exception of looms. About 15 percent of the looms in place in 1934 were manufactured in 1926; that is, after the financial reorganization of 1927 (see chapter III), the only important addition to equipment was the 964 model X Draper looms purchased new in 1934, which represented about 9 percent of all looms in place in that year.¹³

What this obsolescence meant in terms of operating efficiency is suggested by a recent study of mechanical changes in the cotton-textile industry between 1910 and 1936.¹⁴ An important assumption in this study is "that each mill was equipped with the best machinery available at that time [1910 and 1936]. This machinery is assumed to have operated at the machine speeds prevailing in the respective periods. Only such machines and equipment as have been proved practical and economical are included."¹⁵ Ideal conditions in other respects are also posited, and all differences in productivity due to factors other than changes in machines have been excluded from the survey.

From the description of the technological changes, it appears that there were no radical inventions in this 27-year period but rather a series of improvements more or less evenly spaced over the period. Accordingly, the technological level that obtained in 1934 was probably close to the level of 1936. The percentage increase in man-hour output in processing departments between 1910 and 1936 for the products manufactured by Amoskeag is given in table 5.

From this survey, the smallest potential but nonetheless substantial increases in man-hour output, ranging from 32 to

¹³For the period January 1 to November 9, 1934, 91.2 percent of all cotton spindles in place were active compared with 74.0 percent of all cotton looms, according to a company record.

¹⁴Boris Stern, *Mechanical Changes in the Cotton-Textile Industry, 1910 to 1936* (WPA National Research Project in cooperation with U. S. Bureau of Labor Statistics, Department of Labor, Report No. B-2, Oct. 1937).

¹⁵*Ibid.*, p. 2.

**Table 5.- PERCENTAGE INCREASE IN OUTPUT PER MAN-HOUR
OF PROCESSING DEPARTMENTS OF THE COTTON-TEXTILE
INDUSTRY MADE POSSIBLE BY MECHANICAL CHANGES,
1910-36^a**

Department	Percentage increase in mill producing -			
	Sheeting	Sateen	Flannel	Print
Carding	112.49	81.39	95.92	93.05
Spinning	38.89	32.75	32.54	37.35
Spooling and warping	169.18	120.00	142.31	159.74
Slashing and drawing	60.00	42.86	57.13	66.67
Weaving	37.78	47.30	50.56	41.24

^aData from Boris Stern, *Mechanical Changes in the Cotton-Textile Industry, 1910 to 1936* (WPA National Research Project in cooperation with U. S. Bureau of Labor Statistics, Department of Labor, Report No. B-2, Oct. 1937), p. 5.

50 percent, occurred in the spinning and weaving departments. The largest relative increases took place in the spooling and warping department, with the increases in the carding and the slashing and drawing departments next in order.

This comparison, to repeat, rests on the performance of the best available machinery in each base year. Even if Amoskeag had the best available machinery in 1910, its backwardness was extreme in keeping abreast of changes in machinery subsequent to that date, as can be seen from table 3. Each of the departments represented in the table had less than one-quarter of its machinery manufactured after 1910, with the exception of the weaving department, where more than 80 percent of the loom pickage had been manufactured after this date. In other words, the weaving department was the only one of the four that could make any claim to being generally equipped with modern machines in 1934, and in this instance less than 10 percent of the looms were of most recent manufacture, while 18 percent even antedated 1910.

In one respect this understates the extent of Amoskeag's obsolescence because it assumes that Amoskeag had up-to-date equipment in 1910.¹⁶ As previously mentioned, anywhere from 22 to 72 percent of the machinery in these departments, weaving

¹⁶This assumes that the date of manufacture and date of installation are identical; i. e., that Amoskeag purchased only new machinery. According to a letter to the authors from Mr. Dumaine's office, the assumption is generally correct.

again excepted, had been manufactured before 1901. Moreover, to compute age of machinery as of 1934, despite the small volume of additions to equipment after 1920, tends to minimize somewhat the degree of obsolescence because of the advanced age of the machinery that was being scrapped between 1921 and 1934. Thus on the inventory date the average age of spinning-frame spindles was 27.1 years, whereas a year earlier (July 1, 1933) the average age had been 29.3 (table 6).

**Table 6.- AVERAGE AGE OF SPINNING-FRAME SPINDLES
IN THE COTTON SECTION, 1921-34^a**

Year	Average age in years	Year	Average age in years
1921	19.8	1928	24.9
1922	20.8	1929	25.9
1923	21.4	1930	26.7
1924	22.1	1931	27.7
1925	23.1	1932	28.7
1926	24.1	1933	29.3
1927	25.1	1934	27.1

^aBased on an NRP tabulation of company records. The average is computed from ungrouped data as of July 1 of each year on the assumption that the date of manufacture is as of July 1. The date of scrapping is known.

In another respect, however, this procedure overstates the extent of obsolescence in that by addition or interchange of parts a machine may sometimes be so remodeled that its efficiency is much greater than on the date of manufacture. But it is not clear how far this process can be carried. The major improvements have been such as to increase the speed of operation and to enable the machinery to carry a larger, heavier load. These have required, in the main, changes in the design and construction of the machines rather than the additions of gadgets. Long-draft spinning, for example, is an improvement over tape-driven spinning frames which had previously replaced band-driven frames. Now "tape-driven frames can be, and are being, adapted to long-draft spinning. Some band-driven frames have been changed over to long draft, but the amount of such conversion is believed to be relatively small and most of it is not believed worth the new investment. Therefore, spinning equipment that is 25 to 30 years old

appears to be definitely obsolete for the production of the cotton yarns most commonly produced."¹⁷

Be this as it may, to judge by expenditures on repairs and employment in the mechanical section at Amoskeag, it would seem that modernization through repairs was not exploited to the full after 1926.

Since comparable data for individual mills are lacking, it is impossible to know in any exact manner the extent of Amoskeag's handicap, if any, in competition with other mills. One can be certain that its competitors also were not equipped entirely with the best machines in 1910 or in 1936. However, most of Amoskeag's competitors were located in the South, and since these are mills of more recent construction, it is a safe inference that their machines were of more recent manufacture than Amoskeag's equipment.

Some idea of the extent of physical liquidation in the post-war years can be gleaned from the statistics on spinning frames and looms scrapped and replaced. From 1921 through 1934 the company scrapped 230,536 spinning-frame spindles (table 7). These represented 45.5 percent of all spindles in place on the inventory date (August 15, 1934).¹⁸ It is significant that the scrapping of 82 percent of all spindles scrapped occurred after 1927, when the financial reorganizations had been completed, and that half of this took place in the NRA period. During the same 14 years (1921 through 1934) only 23,328 spindles, or 10 percent of the spindleage scrapped, were acquired, and these additions were made by 1923. The median age of scrapped spindleage on the date of scrapping was 40.6 years, with nearly one-fifth of the spindles 50 to 55 years old (table 8).

There are similar data available on looms. Between 1922 and 1934 the company discarded 15,832 looms, or 114.6 percent of the number in place at the end of the period. Only one-quarter of the total scrapped looms were dismantled between 1922 and 1927; two-thirds were scrapped in the succeeding 3 years and 7 percent during the NRA period. Replacement of looms was also

¹⁷A. F. Hinrichs, *Wages in Cotton-Goods Manufacturing* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 683, Nov. 1938), pp. 51-2.

¹⁸Total spindles in place include those whose year of manufacture is unknown.

**Table 7.- DISTRIBUTION OF SPINNING-FRAME SPINDLES AND LOOMS
SCRAPPED IN THE COTTON SECTION, 1921-34,
BY YEAR OF SCRAPPING^a**

Year	Spinning-frame spindles		Looms	
	Number	Percent	Number	Percent
Total	230,536	100.0	15,832	100.0
1921	25,760	11.2	n.a.	-
1922	0	-	451	2.8
1923	14,616	6.3	448	2.8
1924	344	0.2	173	1.1
1925	0	-	993	6.3
1926	0	-	367	2.3
1927	0	-	1,575	9.9
1928	67,032	29.1	5,700	36.1
1929	0	-	1,785	11.3
1930	17,296	7.5	3,212	20.3
1931	1,024	0.4	0	-
1932	9,888	4.3	0	-
1933	28,672	12.4	604	3.8
1934	65,904	28.6	524	3.3

^aBased on an NRP tabulation of company records.

n.a. Data not available.

**Table 8.- DISTRIBUTION OF SPINNING-FRAME SPINDLES AND LOOMS
SCRAPPED IN THE COTTON SECTION, 1921-34,
BY AGE AT TIME OF SCRAPPING^a**

Age in years	Spinning-frame spindles		Looms	
	Number	Percent	Number	Percent
Total ^b	229,544	100.0	6,586	100.0
10-14.9	0	-	45	0.7
15-19.9	0	-	2,688	40.8
20-24.9	5,712	2.5	802	12.2
25-29.9	6,864	3.0	1,687	25.6
30-34.9	15,840	6.9	1,154	17.5
35-39.9	78,608	34.2	210	3.2
40-44.9	69,576	30.3	0	-
45-49.9	8,064	3.5	0	-
50-54.9	44,880	19.6	0	-
Median age	40.6		23.5	

^aBased on an NRP tabulation of company records.

^bExcludes 992 scrapped spindles and 9,246 scrapped looms for which date of manufacture is unknown.

on a larger scale than that of spindles. Thus 3,552 looms, equal to 22.4 percent of the looms scrapped, were purchased in this 13-year period, 73 percent prior to 1927, and the remainder in the year 1934. Unfortunately the date of manufacture is known for only some 40 percent of the discarded looms. For this number the median age on the date of scrapping was 23.5 years. There is presumption in favor of believing that the machinery of undated manufacture was considerably older. If this is true, an annual depreciation rate of 5 percent, which was applied in preparing certain statements, is too high in the case of spinning frames and looms in terms of the actual life of these machines. It may not be too high, however, if the mill were to continue as an effective competitor.

Cost of New Machinery and Repairs

From a statement prepared for the bondholders' protective committee by certified public accountants it is possible to show the sums expended for new machines and repairs after 1926. In that year \$408,273 were spent for machines and equipment exclusive of those for the rayon plant. From that date on, except for 1930 when \$346,623 were spent, there was a continuous decline in the expenditures for new machinery until 1932 when only \$15,974 were so expended. With the purchase of 964 automatic looms in 1934, appreciable sums were again spent - some \$887,000.

The trend in the cost of repairs (materials and labor) is more striking evidence of plant deterioration. With the age of machinery increasing because of the curtailed purchases of new equipment, one would expect more to be spent on repairs if efficiency were not to be reduced. The contrary, however, occurred at Amoskeag. In 1926 repairs costing \$1,290,000 were made. Gradual curtailment from that date reduced the cost by nearly three-quarters to \$372,000 in 1932.¹⁹ To put the equipment in a condition to handle the increased volume of production in 1933 and 1934, annual repairs exceeding \$900,000 were necessary.

The obverse side of this record is the effect on employment in the mechanical and maintenance sections. Man-hour figures

¹⁹Part of the difference would be due to the reduced cost of materials and labor.

for the general section, which also includes clerical employment in the central office, begin with 1927, and in 1932 totaled 2,184 thousand man-hours. The volume of employment remained about the same in 1928 as in 1927, but in 1929, a peak production year, employment was reduced by some 22 percent from the 1927 level. At the trough of the depression in 1932 the curtailment amounted to a 57-percent reduction from the aggregate of man-hours in 1927. There was a partial expansion of employment in this section in the following two years with the increase in volume of production and repairs expenditure.

Much the same situation is disclosed by the average number of workers employed in this section, data for which are available beginning in 1925. In that year a weekly average of 1,022 persons was employed. There was an uninterrupted decline until the average of 386 per week was reached in 1932. By 1934 as many as 728 persons were employed in the average week.

Management Practice

The company could have utilized the principles of "scientific management" without investment in new machinery, for in textiles "the 'stretch out' which is more accurately designated as the 'extended labor' or 'multiple loom' system . . . as originally devised and introduced in 1923 was a process of applying scientific management to automatic weaving which was quite divorced from the introduction of labor saving machinery, since automatic looms had long before been widely installed throughout the cotton manufacturing industry."²⁰

In such circumstances, a stretch-out to be introduced scientifically must involve "the scientific integration of all the functions of the mill to meet the needs of the looms and the weavers. This involved a laborious, systematic, and thoroughgoing study and punctilious adjustment of materials, methods, and operating conditions in all departments - not merely the weaving departments - at the individual mill; and an equally important exercise of skill and care in the maintenance of these conditions."²¹

²⁰ Richmond C. Nyman, *Union-Management Cooperation in the "Stretch Out"* (New Haven, Conn.: Yale University Press, 1934), pp. 21-2.

²¹ *Ibid.*, p. 22.

Evidence in appendixes B, C, and D shows that from about 1920 on Amoskeag continually increased the work load, that is, made use of the stretch-out. There is considerable indication, however, that little or no attention was paid to improving materials, methods, and operating conditions. As a result the company failed to realize the full economies of the stretch-out, and the operatives failed to achieve the expected volume of production, which, of course, affected their earnings and working morale. This is indicated by a number of complaints that found their way into the company-union minutes.

As early as 1924, for example, the box-loom fixers petitioned that their sections should be reduced to 40 looms because it was impossible for a loom fixer to keep up his work on account of poor castings, poor warps, and poor equipment.²² In the following year, at the first annual dinner conference between management and employee representatives, an operative reminded the management that it "had promised some six months ago improved material or improved product to be passed along from one operation to the next which would ease the work of the various operatives. So far as he had been able to observe, the work of the many departments had been increased but the product or material passing through the various operations is now as defective as ever."²³

Again, in 1927, the weavers in the Stark Mill "complained that 32 looms were too much for one weaver to run, with the quality of warps and filling as they are at present." In this instance the weavers carried their point, for it was decided "that the loom sets [should] be changed from 32 to 28 looms at present and left to the discretion of the overseer if the weavers can run more looms when the conditions are better."²⁴

Similar conditions obtained in the Bag Mill weaving department as late as 1930. In this instance the weavers complained about the poor conditions of their warps, their low wages, and the number of looms they tended. The committee made a first-hand investigation and noted that the warps were "crossed, soft sized and soft yarn; tiebacks and lint accumulating in deep

²²Minutes of the Joint Departmental Committee, Docket C4001, 1924.

²³Minutes of the First Annual Convention, April 18, 1925.

²⁴Minutes of the Joint Departmental Committee for Cotton Weaving, July 18 and 27, 1927.

wires." It was voted that "in view of the conditions as shown this committee, the overseer should in his discretion return as many of the improperly sized, crossed and soft twisted warps [as well as] . . . those containing too many tiebacks to the dress room for correction. To turn down warps attempting to get beyond soft places and tiebacks; and, if necessary, to employ room girls, back tenders or spare weavers to cover the back alleys helping out the weavers, by finding broken ends and piecing up, straightening ends, etc., of those warps which may not be bad enough to return to the dress rooms, until such time as the above conditions shall improve."²⁵

This condition, moreover, was not restricted to the weaving departments. Thus there is a record of the complaint filed by "the worsted doublers on 60 spindle work that the job as laid out is too big to handle as the yarn is running poorly." Investigation supported their contention, and "it was voted that the operatives [should] run 40 spindles instead of 60 until yarn conditions [should] return to normal."²⁶ Likewise, when the beamers at Number 7 Mill complained that they were unable to earn a satisfactory week's pay, the committee recommended "that a careful investigation be carried out to insure the yarn reaching the beamers in better condition and prevent breaking and tearing which now slows up the beaming."²⁷

A lack of integration among operations was also in evidence in the reports of other grievances presented by company-union delegates.²⁸ Nor was there much systematic attempt, to judge by the workers' complaints, to improve the more personal type of working conditions, such as lighting, drinking facilities, dust removal, or the more serious consideration of seniority rights. The application of the stretch-out under these circumstances could have only the result which the operatives themselves pointed out. At the depth of the great depression the representatives to the Employees' Council "discussed circumstances which caused high cost through inferior production due to employees being given too much work. This causes seconds, remnants and rags."²⁹

²⁵*Ibid.*, January 27 and 28, 1930.

²⁶Minutes of the Joint Departmental Committee, Docket W2007, 1928.

²⁷*Ibid.*, Docket C3009, 1930.

²⁸*Ibid.*, Docket C4005, 1925; Docket C4030, 1929; Docket C4034, 1930.

²⁹Minutes of the Employees' Council, January 20, 1932.

The Effect of "Giantism"

To judge from the character of Amoskeag's growth, the presumption is that its very size was a handicap. Its rise to a position as the world's largest textile plant in one location was largely by accretions through the purchase of financially weak mills rather than by the construction of new plants based on surveys by textile engineers with a view to building up to optimum capacity.

The presumption, however, cannot be tested empirically. This would require detailed cost analysis by size of firm, data which do not exist. Nor are inferences permitted from a comparison of Amoskeag costs in 1933 and 1934 with the results of the Federal Trade Commission investigation into costs and profits of cotton-textile companies in these two years, since none of the companies included in the commission's survey carried on the variety of processing operations that was carried on by Amoskeag.

Certain considerations, however, may be noted. One writer with textile-mill experience reports:

The general concensus in the trade is that a print cloth mill of about sixty thousand spindles attains the principal economies of size, and that with further increase there are no proportionate economies of large-scale management. For a mill producing coarser yarn fabrics such as sheetings, maximum efficiency could be attained in a mill of not much over thirty thousand spindles. These economies are largely economies of management and plant layout rather than strictly due to technical efficiency. Smaller mills could for practical purposes be considered as equally efficient on technical operation solely.³⁰

If mill opinion is correctly represented in this quotation, it is applicable to Amoskeag, for with the decline in gingham production a large percentage of Amoskeag's production was composed of print cloth and the coarser yarn fabrics. It is of interest, therefore, not only to have some idea of Amoskeag's size but also an idea of the size of some of the individual mills in the cotton section. The number of spindles in the spinning departments is known as of the summer of 1934. The Coolidge Mill with 104,896 spindles was the largest. Three

³⁰Kennedy, *op. cit.*, p. 188, fn. 5.

mills had a spindleage varying from 70,000 to 90,000; in three other mills the number of spindles was between 39,000 and 58,000, and in only one mill was the number less than 30,000 (table 9).

**Table 9.— NUMBER OF SPINDLES IN THE SPINNING DEPARTMENTS
OF THE VARIOUS MILLS IN THE COTTON SECTION,
JULY 31, 1934^a**

Mill designation	Number of spindles
Total	513,376
Coolidge	104,896
No. 4 Central	89,312
Amory	77,904
Stark	70,504
Jefferson	57,600
No. 1 Central	49,348
No. 1 South	39,488
No. 9 Central	24,324

^aBased on an NRP tabulation of company records.

Since, it is claimed, the chief economies derived from a mill with more than 30,000 spindles are economies of management, there is point in considering all the Amoskeag mills as one, for many of the managerial functions were performed by the central office rather than by the office of a given mill. On this basis Amoskeag had 513,376 spindles. To this number should be added the net loss of 207,208 spindles between 1921 and 1934. Thus even on the 1934 basis the cotton section of Amoskeag as a single unit was more than eight times the size at which economies are thought to cease. No mention, however, is made at what point diseconomies set in.

That diseconomies very probably do set in is suggested by the necessity for considerable trucking of cloth in process both within mills and from one mill to another. Not only is the additional trucking itself a cost which would not be incurred by a smaller mill, but because trucking involves additional handling there is added opportunity for soilage, waste, and seconds.

It might be argued, perhaps, that such disadvantages were more than compensated for by the fact that its large capacity

made it feasible for Amoskeag to have its own dyeing and finishing plant, thereby gaining the advantages of complete integration of all manufacturing processes. In the pre-war period such integration very likely had its advantages. In more recent years, when frequent style changes have become an important factor, integration of this character, given Amoskeag's location, might well have entailed a serious handicap; that is, the styling takes place in the finishing department, and a department located almost 300 miles from New York City, the style center, could not have a sensitive appreciation of style trends. It is no coincidence that 60 percent of the jobs in dyeing and finishing textile establishments in 1933 were located within a radius of about 100 miles of New York City.³¹ This handicap could not be overcome merely by having a New York sales office. Obviously, close collaboration between the sales office and finishing department could not readily be established over such a distance, or at least it would be less effective than similar collaboration between the commission house and converter, which has been the more usual arrangement.³²

The Amoskeag arrangement could work to advantage only if the company had its products retailed under its own label, which can be done with some staple products, such as towels, sheets, and blankets, or with products manufactured by a special process, such as Sanforized fabrics. Such adaptations appeared to be more difficult to make at Amoskeag than elsewhere because of its size. The *Boston News Bureau* was of this opinion. In its judgment, "smaller plants making staple lines have found it relatively easy to change over their production to fancy goods, but for the country's largest cotton mill to swing over to the production of a highly styled line of goods is revolutionary."³³

³¹This statement is based on the fact that 40,638 wage earners of the total 88,309 employed in the industry in 1933 according to the *Census of Manufactures* were located in Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

³²This judgment is supported by the findings of a recent investigation made by Hiram S. Davis, George W. Taylor, and Others, *Vertical Integration in the Textile Industries* (Phila., Pa.: Industrial Research Department, University of Pennsylvania, and The Textile Foundation, Inc., 1938). The authors conclude (p. 14): "A review of the way vertical integration has worked in the textile industries leads to the conclusion that its success depends upon the attention that is given to two fundamental policies. They are (1) building an organization around the needs of the current market, with the seat of authority close to the market; (2) providing flexibility to meet changing market requirements - most effectively realized through the use of partial integration."

³³Quoted in the *Manchester Union*, July 3, 1925.

In this connection, the limited extent to which Amoskeag manufactured styled fabrics should be noted. It produced both cotton and worsted goods, the former being the much more important branch of the business. Worsted goods were produced for men's and women's wear for both the spring and fall seasons. Among the cotton goods, gingham were the most important single product for the greater part of the period, with flannels next in importance and even superseding gingham in the last 10 years. Sheetings, towelings, and tickings have comprised from about 10 to 15 percent of the total cotton-cloth production. For a brief period, 1926-33, the company also manufactured rayon textiles. Although the volume of production from this section was relatively negligible,³⁴ a discussion of the section's development is merited since it was the one outstanding attempt on the part of the company to adapt its production in accordance with current trends before the trustees decided on further liquidation through the financial changes of 1927.

The Experiment in Rayon Production

Before the rayon unit began production in 1926, preliminary experimentation had been carried out over a period of $2\frac{1}{2}$ years, according to an announcement in a local newspaper.³⁵ From testimony before the Sabbath Committee there is some basis for believing that during these $2\frac{1}{2}$ years the "men sat around for a year or so, without anything to do, receiving salaries, complaining bitterly that the company should manufacture rayon; that there was a market for it, and nothing was done", although "there was some difference of opinion about it."³⁶

After the first few months of operation, the agent was able to report to the Joint Convention of Employee Representatives that the "rayon department is doing remarkably well and is producing a much higher grade of rayon than we expected for the

³⁴Statistics on the physical volume of rayon cloth produced are not available, but figures on annual net sales do exist. Annual net sales of rayon as a percentage of Amoskeag's annual total net sales of all cloth in each year from 1926 through 1933 are as follows: 0.1, 1.0, 1.1, 1.3, 0.8, 1.7, 3.3, and 0.5. Accordingly, rayon production may be omitted in the discussion of production trends.

³⁵*Manchester Leader*, March 27, 1926, cited by Alan R. Sweezy, "The Amoskeag Manufacturing Company," *Quarterly Journal of Economics*, Vol. LII, No. 3 (May 1938), p. 502.

³⁶U. S. Congress, House of Representatives, *Investigation of Real Estate Bondholders' Reorganizations*, Public Hearings Before a Subcommittee of the Select Committee (Hon. Adolph J. Sabath, chmn.), 74th Cong., 2d sess., Sept. 30 and Oct. 1 and 2, 1936, Part 18, p. 113. Also quoted by Sweezy, *loc. cit.*

time it has been in operation." But even at the outset, operations were hampered by inadequate investments. Asked whether the rayon department "will continue to run night and day indefinitely", the agent responded, "I cannot say. We are restricted by limited machinery to produce these lines."³⁷

Presumably it was the realization that the initial investment of \$121,000 was insufficient that prompted the additional investment of almost \$164,000 during the course of 1926. Nevertheless, a small loss after depreciation continued until 1927 when the first profits were realized, amounting to \$129,000. It was probably this showing that encouraged the management to make a further investment of \$184,000 in 1928, a step that was justified by the profits which were earned each year through 1931. In the following year and in 1933, when liquidation of the department occurred, small losses were sustained. However, during the 8 years of the experiment, gross profit on sales was \$278,165 after depreciating all but \$23,000 of the entire investment of \$619,000, or an average depreciation rate of about 12 percent per annum. The annual rate of return on the total investment over these 8 years was 5.6 percent.

Nonetheless, the trustees decided to liquidate the rayon department. The treasurer related to the Sabath Committee the considerations that influenced this decision.

We had got to a place where we were producing about 20,000 pounds of rayon yarn a week, or approximately 1,000,000 pounds a year. The plant had been started in a vacant building, not well adapted for the business, and the time had come when we had to consider the question of investing a lot more money for new machinery and possibly moving the whole outfit into another building. . . . We found - or, rather, I should say, they [the contractors] found - that it would cost as much, or perhaps more, to adapt this big building to the production of rayon yarn as it would to start afresh and build a new institution. The question then came as to the advisability of spending a large sum of money - and by that I mean \$1,000,000 or \$2,000,000 or \$3,000,000, perhaps - to establish the production of rayon yarn in Manchester. Having in mind that we must compete with such concerns as Du Pont, Celanese and Industrial Rayons, we decided not to do it. Our operation [sic] had begun to be not as efficient as they should be, and,

³⁷Minutes of the Joint Convention of Employee Representatives, March 15, 1926.

therefore, it was the best judgment on the part of the management that it was not good wisdom to invest a large sum of money in that property.³⁸

Possibly if the \$26,000,000 which, as the material in the next chapter indicates, was drained off by the Amoskeag Company during the years 1925-27 had remained with the Amoskeag Manufacturing Company, the trustees would not have regarded it as a very risky venture to invest the additional funds needed in rayon production.

Local Taxation

The competitive difficulties thus far enumerated are mainly the results of inertia or inability to introduce innovations. There was, however, a handicap of lesser importance that could not be so classified - that of local taxation. The fiscal laws of New Hampshire permitted Manchester to levy a property tax not only on mills and machinery but also on stock in trade, that is, on inventories of all kinds. The latter tax is unusual in a State in which manufacturing is important. To that extent New Hampshire's industry operated under an additional competitive handicap.

The extent of the tax handicap for Amoskeag compared with other textile mills in the North and South can be seen from table 10. Local taxes are expressed as a percentage of gross income for each year from 1926 to 1933. The data for the four New England States (Connecticut, Maine, Massachusetts, and Rhode Island), as well as for the four Southern States (Alabama, Georgia, North Carolina, and South Carolina), were adapted from Federal income-tax returns supplied by the Treasury Department to the Tariff Commission. From this comparison it is clear that until 1933 local taxes took a larger percentage of Amoskeag's gross income than of the gross income of cotton-textile corporations generally in New England or in the South. In 1933 Amoskeag had the smallest ratio and the southern mills had the highest ratio, possibly because some processing taxes were included, although most corporations reported processing taxes under cost of goods sold.³⁹ The differences between the Amoskeag and New England ratios are probably due chiefly to the stock-in-trade tax in New Hampshire.

³⁸*Investigation of Real Estate Bondholders' Reorganizations*, p. 189; Sweezy, *op. cit.*, p. 503.

³⁹*Cotton Textile Industry*, table 59, fn. 3, p. 149.

Table 10.- PERCENTAGE TAXES ARE OF GROSS INCOME FOR AMOSKEAG
MANUFACTURING COMPANY AND FOR COTTON-TEXTILE
CORPORATIONS IN NEW ENGLAND AND
THE SOUTH, 1926-33^a

(Income taxes excluded)

Year	Amoskeag	New England	South
1926	3.14	2.06	1.18
1927	2.84	1.90	1.47
1928	2.57	1.95	1.37
1929	2.24	1.77	1.29
1930	3.12	2.26	1.75
1931	3.06	2.21	1.98
1932	3.66	3.12	2.33
1933	2.61	2.91	4.33

^aU. S. Congress, Senate, *Cotton Textile Industry*, S. Doc. No. 126, 74th Cong., 1st sess., 1935, p. 149. Figures for both New England and the South represent data for four States.

Whether this is so or not, it is of interest to find out how much Amoskeag would have saved had it been taxed at the rates generally prevailing in New England or in the South. Taxed at the New England rate, Amoskeag would have saved \$1,194,407 from its gross income in the 8 years 1926-33; at the southern rate the saving would have been \$1,882,521. During the same years the net operating loss from manufactures without allowance for depreciation was \$4,951,839. Lower taxes, even at the level of the southern mill villages, would not have eliminated deficits. It should be apparent, moreover, that the essential community services supported by Manchester could not have been supported if its property-tax rate had been as low as that which prevailed in southern textile towns. It is also noteworthy that the tax differential between the New England and southern textile communities, judged by the ratios of local taxes to gross income, has been narrowed because of the dual action of lowering taxes in New England and of raising the rate in the South.

The adjustments made by Manchester in Amoskeag's assessed values and taxes may be illustrative of the former process (table 11). From 1910 to 1917 the assessed value of Amoskeag represented slightly less than one-quarter of the total assessed valuation of all Manchester. In other words, the rates of increase in the total valuation of property in Manchester

Table 11.- ASSESSED VALUATION OF MANCHESTER AND AMOSKEAG
MANUFACTURING COMPANY, TAXES PAID BY AMOSKEAG,
AND THE TAX RATE, 1910-36^a

Year	Assessed valuation (thousands of dollars)		Amoskeag's valuation as percent of Manchester's valuation	Tax rate per \$1,000 (dollars)	Local taxes paid by Amoskeag ^b (thousands of dollars)
	Manchester	Amoskeag			
1910	39,881.9	9,850.0	24.7	20.10	198.0
1911	41,451.8	9,850.0	23.8	20.40	200.9
1912	67,012.5	17,000.0	25.4	15.20	255.0
1913	69,208.3	17,000.0	24.6	15.20	288.4
1914	68,798.1	17,000.0	24.7	15.20	266.9
1915	71,875.1	17,020.0	23.7	15.20	268.9
1916	74,557.3	17,538.5	23.5	15.60	273.6
1917	79,463.3	18,482.2	23.3	16.40	319.5
1918	83,151.2	21,337.0	25.7	16.20	360.6
1919	92,977.2	24,213.4	26.0	20.60	498.8
1920	109,454.6	30,541.2	27.9	18.20	555.8
1921	110,326.8	30,544.4	27.7	24.50	748.3
1922	111,632.3	32,308.9	28.9	26.00	840.0
1923	114,597.9	35,497.5	31.0	23.50	834.2
1924	113,703.3	35,490.6	31.5	24.00	851.7
1925	118,869.8	32,732.3	27.5	28.50	784.4
1926	121,275.8	33,399.0	27.5	26.00	866.5
1927	113,214.6	26,000.0	23.0	27.80	694.0
1928	113,440.3	26,000.0	22.9	27.50	685.2
1929	113,819.2	26,000.0	22.8	25.50	662.0
1930	110,880.8	22,705.2	20.5	27.00	588.6
1931	106,151.9	18,343.6	17.3	28.00	493.4
1932	96,109.1	13,000.0	13.5	28.75	373.8
1933	93,277.7	13,000.0	13.9	28.00	364.0
1934	95,868.8	16,000.0	16.7	28.50	432.7
1935	92,757.5	13,000.0	14.0	32.00	299.4
1936	85,038.1	6,750.0	7.9	41.00	265.7

^a Compiled from Annual Reports of the City of Manchester, 1910-36, and from records on file with the Board of Assessors, Manchester, N. H.

^b Tax assessments minus abatements.

and in Amoskeag's valuation were about equal. From 1918 to 1924 Amoskeag's rate of increase was more rapid than the remainder of Manchester's property which, however, did not reach its peak valuation until 1926 and thereafter declined at a slower rate than did Amoskeag's assessed valuation. Thus

during the great depression Amoskeag's property accounted for only about 14 percent of Manchester's assessed valuation, which from the peak of \$121,000,000 had been reduced to \$96,000,000 in 1932. Since the city's tax revenues were almost exclusively derived from the property tax, Amoskeag contributed to tax revenues in about the same proportion as it figured in the total assessed valuation of the city.

Since Manchester's budget was subject to little flexibility, as the assessed value of city property declined the tax authorities were obliged to raise the tax rate per \$1,000 of property to insure adequate revenue. The pre-war rate was between \$15.00 and \$20.00; at the time of the highest valuation in 1926 the rate was \$26.00. Increases were gradual from that point on, reaching a rate of \$32.00 in 1935 and \$41.00 in 1936. For this reason the decline in Amoskeag's tax payments in most years was not quite so rapid as the decline of its assessed valuation. Nevertheless, Amoskeag's tax payments in 1932 and 1933 were less than 45 percent of the largest tax payments made by Amoskeag in 1926.

From these data it appears that as the burden was lifted from Amoskeag, at least in absolute terms, to approximately the same extent an additional burden was placed upon other property in Manchester. If this shift had been made earlier or in larger amounts, it very probably would have worked out its effects in terms of higher rents; and this would perhaps have made it more difficult for Amoskeag to have paid wage rates over all these years that were less than those paid generally by other textile mills in New England. That is, the wage and tax differentials probably tended to have compensating effects.

SUMMARY

These, then, are the more important general problems and special difficulties which in the course of the post-war adjustments transformed an important cotton-textile center into a depressed area. Enough of the industry's background has been presented to show that the basic maladjustment of excess capacity was clearly in evidence before the World War and would have forced serious readjustments even if there had been no war. The war had the dual effect of postponing the day of reckoning and of accentuating the severity of readjustments.

In addition to some disadvantage in taxation, the Amoskeag Company's position in competition with southern mills was adversely affected by obsolescence of equipment, of management practice, and of marketing organization. Similar handicaps affected the competitive position of most New England textile mills. To what extent these were self-imposed it is difficult to judge. Professor W. E. Freeland, industrial counsellor of the Massachusetts Institute of Technology, in an address to the Lowell Chamber of Commerce in 1927, attacked "absentee ownership and trustee control" and laid the blame for chaotic textile conditions in Lowell at the doors of the millmen who, he said, "lacked good judgment, are poor managers of their own plants and failed to keep abreast [of] changing conditions."⁴⁰

Amoskeag was among the last of the textile mills of the area to succumb to the trends. To buck the tide would certainly have meant rough sailing, but to do so would no more have made failure inevitable than it would have made success assured. On the other hand, to drift with the tide could only mean being engulfed by it. Nevertheless, this seemed to be the policy of the Amoskeag trustees, as suggested by the company's financial history related in the following chapter.

⁴⁰"Gives Strong Advice to Lowell Business Men," *Textile World*, Vol. LXXII, No. 25 (Dec. 17, 1927), p. 36.

CHAPTER III

AMOSKEAG'S PROFIT RECORD AND CORPORATE REORGANIZATIONS

An account of the financial history of the company must be related to its earnings record if it is to be meaningful. This record will serve as more than background out of which the financial reorganizations of 1911, 1925, and 1927 were devised. It will show also how the general problems of the industry and the specific difficulties of Amoskeag were reflected in its activities.

THE PRE-WAR PERIOD, 1906-14

This accounting begins with 1906. In the preceding year Amoskeag had acquired its worsted section by absorption of the Manchester Mills and had enlarged its cotton-cloth production at the same time by the acquisition of the Amory Mills. The only other additions to productive capacity, aside from the purchase of the Stark Mill in the course of the 1922 strike, were the construction of the Coolidge Mill in 1910 and the New Bag Mill in 1914. Accordingly, Amoskeag may be regarded as having come of age in 1905, and an examination of its earnings record would properly begin with the following year (table 12).

The net operating profit earned separately by the cotton and worsted sections, as well as the dividends paid on outstanding common and preferred shares of stock, is available from company records. Since overhead expenses were allocated by Amoskeag to the cotton and worsted sections in the proportion of two-thirds to the former section and one-third to the latter section, this may be taken to represent the relative value of investments in the two sections. For this reason dividend disbursements were apportioned in the same manner. From these data it is possible to determine year by year the amount by which the earnings of each section either exceeded or fell short of the amount of dividend payments attributable to the respective sections.

This basis of comparison seems more illuminating than earnings per share. With the mergers in 1905 the capital structure

**Table 12.- ANNUAL RECORD OF OPERATING PROFIT OR LOSS, DIVIDENDS, AND SURPLUS OR DEFICIT
FOR THE COTTON AND WORSTED SECTIONS OF THE AMOSKEAG MANUFACTURING COMPANY, 1906-34^a**

(Dollars)

Year	Total			Cotton section			Worsted section		
	Total operating profit or loss from manufactures	Dividend payments	Surplus or deficit after dividends	Total operating profit or loss from manufactures	Dividend payments	Surplus or deficit after dividends	Total operating profit or loss from manufactures	Dividend payments	Surplus or deficit after dividends
1906	1,093,664.75	633,451.00	460,213.75	752,625.55	422,300.67	330,324.88	341,039.20	211,150.33	129,888.87
1907	1,444,472.08	1,152,000.00	292,472.08	1,022,173.08	788,000.00	234,173.08	422,209.00	384,000.00	38,299.00
1908	1,070,144.24	691,200.00	378,944.24	562,988.48	460,800.00	101,588.48	507,755.76	230,400.00	277,355.76
1909	800,216.82	691,200.00	109,016.82	504,989.04	460,800.00	44,189.04	295,227.76	230,400.00	64,827.76
1910	791,310.79	691,200.00	100,110.79	380,688.34	460,800.00	80,111.66	410,822.45	230,400.00	180,222.45
1911	1,007,299.05	1,079,325.00	72,025.85	880,538.09	719,550.00	160,988.09	126,760.96	359,775.00	233,014.04
1912	1,049,513.22	1,035,842.50	13,670.72	775,047.52	690,561.67	84,485.85	274,465.70	345,280.83	70,815.13
1913	1,106,332.94	1,036,795.75	69,537.19	719,780.14	691,196.50	28,583.64	386,552.80	345,599.25	40,953.55
1914	1,025,485.27	1,036,800.00	11,314.73	665,135.10	691,200.00	26,064.90	360,350.17	345,600.00	14,750.17
1915	1,129,366.29	1,036,800.00	92,566.29	667,770.69	691,200.00	23,429.31	461,585.60	345,600.00	115,985.60
1916	1,184,354.44	1,036,800.00	147,554.44	494,758.66	691,200.00	196,443.34	689,597.76	345,600.00	343,997.76
1917	2,255,567.88	1,036,800.00	1,218,767.88	1,422,904.32	691,200.00	731,704.32	832,663.56	345,600.00	487,063.56
1918	7,374,269.63	1,123,200.00	6,251,069.63	5,539,285.96	748,800.00	4,790,485.96	1,835,003.65	374,400.00	1,460,603.65
1919	2,977,219.78	864,000.00	2,113,219.78	2,660,963.72	576,000.00	2,084,963.72	316,256.06	286,000.00	28,256.06
1920	2,655,706.64	2,255,400.00	400,306.64	2,610,272.90	1,503,600.00	1,106,672.90	45,433.74	751,800.00	706,366.26
1921	1,443,323.12	2,523,600.00	1,080,276.88	865,437.28	1,682,400.00	796,862.72	557,885.64	841,200.00	289,314.16
1922	562,255.88	2,005,200.00	2,531,455.88	363,483.67	1,336,800.00	1,700,283.67	162,772.21	666,400.00	831,172.21
1923	1,318,525.31	1,486,800.00	168,274.69	1,108,394.21	991,200.00	117,194.21	210,131.10	495,600.00	285,468.90
1924	4,144,434.40	1,227,600.00	5,472,034.40	2,833,582.25	818,400.00	3,751,982.25	1,310,852.15	409,200.00	1,720,052.15
1925	1,464,440.28	225,000.00	1,709,440.28	2,592,330.39	150,000.00	2,742,330.39	1,107,890.11	75,000.00	1,032,890.11
1926	1,580,608.91		1,580,608.91	2,195,517.53		2,195,517.53	614,908.62		614,908.62
1927	1,474,279.50		1,474,279.50	593,534.52		593,534.52	880,744.98		880,744.98
1928	1,015,727.84		1,015,727.84	909,819.43		909,819.43	105,808.41		105,808.41
1929 ^b	782,260.89	365,977.50	416,283.39	233,391.70	243,984.00	479,375.70	1,017,652.59	121,993.50	895,659.09
1930	2,668,469.44		2,668,469.44	1,718,537.82		1,718,537.82	949,931.62		949,931.62
1931	805,340.60		805,340.60	633,705.84		633,705.84	271,634.76		271,634.76
1932	1,037,151.73		1,037,151.73	837,640.57		837,640.57	199,511.16		199,511.16
1933	1,081.15		1,081.15	402,661.90		402,661.90	401,780.75		401,780.75
1934	1,523,668.10		1,523,668.10	1,225,538.65		1,225,538.65	298,329.45		298,329.45

^aData for: 1906 to May 31, 1925, adapted from Amoskeag ledgers; June 1, 1925, to December 31, 1934, adapted from a report of public auditors to the Bondholders' Protective Committee. Profits or losses from investments are excluded. See table F-2. Italics indicate loss or deficit.

^bDividends paid out in 1930 but declared on the basis of 1929 earnings.

consisted of only 57,600 shares of common stock with a par value of \$100, all of which were outstanding. That the company was grossly undercapitalized from that date to the subsequent reorganization in 1911 was indicated by the fact that the market price of Amoskeag stock in those years centered around \$325. Hence its dividend rate in that period was 12 percent on the par value but only 3.65 percent when figured on the market price.¹ For this reason a comparison based on earnings per share would give a misleading impression of the relative prosperity of the company in those years. On the other hand, since the latter rate represents but a very modest return on an investment and since the dividend rate, though somewhat enhanced, remained a modest one (5.54 percent) for a number of years after the reorganization of 1911 which eliminated the discrepancy between capitalized and market value, a comparison based on the excess or deficit in earnings after dividend payments appears more meaningful.²

The earnings (or losses) in question are those derived solely from manufacturing activity; that is, profits or losses from investments are excluded.³ In the cotton section, by far the larger component of Amoskeag's business, there were sizable surpluses after dividends in the first two years of the period. These surpluses were appreciably reduced in each of the following years, 1908 and 1909; in 1910 the cotton section failed to earn its dividend payments by \$80,000. In each of the same five years (1906-10) the worsted section earned a surplus after dividends, varying from \$227,000 in 1908 to \$38,000 in the preceding year. And in 1910 there was a surplus of \$180,000 from worsted operations to more than offset the deficit in the cotton section. In 1911, however, after the initial payment of dividends on the preferred shares and an extra dividend on the common, the worsted section for the first time since the reorganization of 1905 did not earn its dividend payments by as much as \$233,000. Despite the surplus after dividends of \$160,000 in the cotton section, the combined

¹ *Manchester Union*, August 28, 1911.

² After 1911 the dividend on the old basis was \$18 instead of \$12. This is a return of 5.51 percent on the market price of \$325.

³ Amoskeag accounting practices have been followed throughout. This involves an important departure from accounting orthodoxy in that Amoskeag made no provision for depreciation but charged additions to plant and equipment as an operating expense. For the period under consideration the net effect has been to exaggerate earned surpluses and to minimize deficits.

manufacturing operations of Amoskeag had to draw upon their accumulated reserve in order to meet dividend obligations in 1911, although the added dividends did not mean an unduly high rate of return.

**Table 13.- ANNUAL PRODUCTION OF COTTON AND WORSTED CLOTH,
1907-35^a**

(Square yards)

Year	Total (millions)	Cotton cloth (millions)	Worsted cloth ^b (tens of thousands)
1907	187.2	172.3	148.7
1908	171.9	159.6	123.0
1909	185.2	171.3	139.0
1910	207.9	191.7	161.7
1911	219.3	205.1	141.9
1912	236.2	223.7	125.2
1913	231.6	217.5	140.9
1914	234.9	221.2	137.1
1915	213.9	200.3	135.8
1916	200.5	188.2	122.6
1917	202.8	188.7	141.0
1918	171.4	159.7	117.0
1919	143.2	136.0	71.7
1920	159.9	150.0	99.3
1921	147.5	143.6	39.5
1922	132.6	125.4	71.5
1923	116.4	110.2	61.9
1924	138.2	130.4	77.7
1925	89.6	84.5	51.4
1926	128.4	121.7	66.8
1927	124.6	118.3	63.4
1928	125.4	120.2	52.2
1929	114.8	109.4	54.3
1930	108.3	105.6	27.5
1931	88.3	84.8	35.5
1932	86.8	84.0	28.5
1933	88.2	84.2	40.5
1934	114.7	112.3	24.5
1935	n.a.	110.4	n.a.

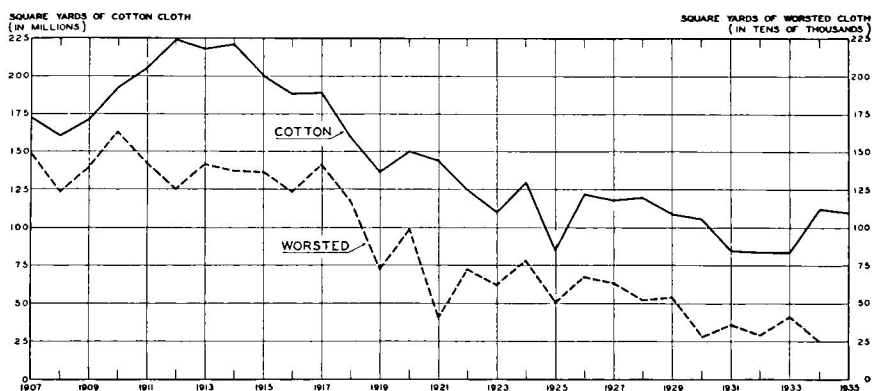
^aBased on fiscal year ending May 31. Data from company records deposited with the Hamilton Smith Library, University of New Hampshire, Durham, N. H.

^bFor 1929 and ensuing years figures are based on calendar instead of fiscal years.
n.a. Data not available.

The deficit after dividends continued in 1912 in the worsted section, while the surplus in the cotton section was reduced by almost one-half. The effects of the pre-war depression were reflected in the small surpluses in each section in 1913 and a deficit of \$26,000 in the cotton section in 1914, which was not offset by the still smaller surplus of the worsted section.

Perhaps of greater significance in indicating Amoskeag's position at that time was the decline in physical output that had set in (table 13). Thus the peak of worsted production occurred in 1910; that of cotton production, in 1912 (figure 2).

Figure 2.- ANNUAL PRODUCTION OF COTTON AND WORSTED CLOTH, 1907-35

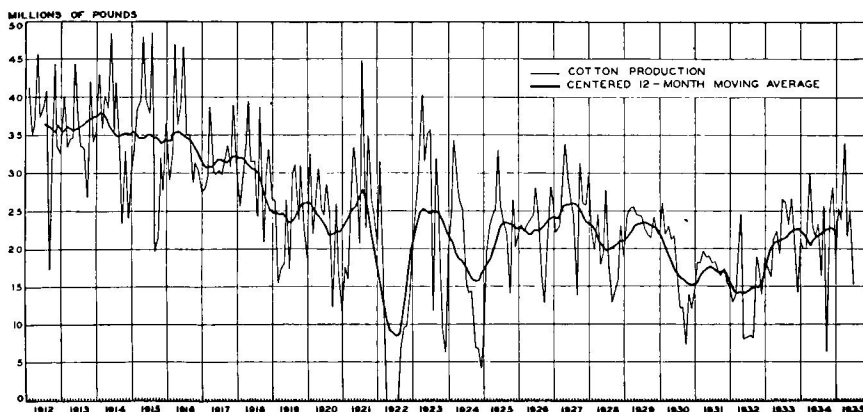


Based on table 13

WPA - National Research Project

L-42

Figure 3.- MONTHLY COTTON PRODUCTION, 1912-35



Based on an NRP tabulation of company production records

WPA - National Research Project

L-43

From these data it would appear that the fears expressed by the Amoskeag officials in the first decade of the century had some foundation in their own business experience. It shows also that Amoskeag, like the industry in general, was affected by the decline in profit margins that began about 1907 and continued up to America's entrance into the war.

The Financial Reorganization of 1911

Although the motives that prompted the financial reorganization in the latter part of 1911 doubtless were mixed, in the light of the above information and in view of some of the terms of the reorganization it would seem that it was partly motivated by the incipient decline. The formal change involved the transformation of a New Hampshire corporation into a New Hampshire trust. According to a financial analyst, this was undertaken for the purpose of avoiding taxes on the part of the shareholders,⁴ and this he considered to be "the compelling reason." The occasion was used, however, to alter the capital structure.

The exchange of one share of common stock in the corporation for two shares of cumulative no-par preferred with an annual dividend rate of \$4.50 and three shares of no-par common stock in the New Hampshire trust was regarded as merely inflating the capital structure to fit the capital worth of the company as measured by the value of its securities.

This is at least superficially correct. It should be remembered, however, as the observer quoted above pointed out at this time, that

"some might infer that it comes as a result of unusual prosperity of late. But examination of the report just issued clearly disproves this, showing that the Amoskeag Company has suffered from the prevailing textile depression. In point of fact, it is solely the achievement of years of operation"⁵

⁴"An ulterior motive appears in the taxation advantages to be gained in the new form of organization. Indeed, this alone may be regarded as the compelling reason for the recommended change. The shares of the Amoskeag Manufacturing Company, the New Hampshire corporation, are largely held in Massachusetts, and so pronounced is the trend at present in favor of nontaxables in this State that some such step was almost unavoidable. Certificates of the voluntary association will be nontaxable, both in Massachusetts and in other States." J. I. Eldredge in the *Bank Journal*, quoted by the *Manchester Union*, October 11, 1911.

⁵*Ibid.*

This statement is amply corroborated by the profit record just reviewed. Moreover, there is reason for believing that a large part of the Amoskeag stock before reorganization was owned by a small group. Thus a Manchester newspaper reporting the ratification of the reorganization plans by a stockholders' meeting remarked that "about twenty stockholders were present at the meeting. . . . [They] represented over 53,000 shares of stock" out of a total number of 57,600.⁶

With these facts to go on and the assumption that these 20 stockholders believed that the failure to earn all the dividends in 1911 was not due entirely to the "prevailing textile depression" but also to the beginning of a secular decline, one would expect veteran Boston financiers to safeguard their interests. This was accomplished by creating two classes of stock, preferred and common shares. By selling the latter they could recapture their original investment, more or less, depending on when the original investment was made;⁷ and by retaining the preferred stock they would have first claim to any profits that might be earned, or to considerable sums in the event the decline became very severe and resulted in liquidation, since the plant in all probability had not been overvalued even after the write-up.

These inferences appear justified also by the reasons for the recommended changes in capital structure as these reasons were set forth in the *Circular to the Stockholders of the Amoskeag Manufacturing Company* under date of August 28, 1911. The reasons which led to these recommendations are as follows:

1. The preferred shares, considering the amount of property and the assured earning capacity of the concern, are likely to be highly regarded as an investment, the amount of dividends to be paid on the common shares being more dependent on future growth and general business conditions.
2. The lower prices at which the new shares will sell in the market will be an inducement to others to associate themselves with us in the ownership of the property among whom it is hoped will be many of our officials and operatives, who are deterred from becoming stockholders in the corporations by the present high price of this stock.⁸

⁶Manchester Union, October 14, 1911.

⁷Each common share was to receive an annual dividend of \$3.00. This amount capitalized at 8 percent yields a capital value of \$50.00.

⁸*Circular to the Stockholders of the Amoskeag Manufacturing Company*, quoted in the Manchester Union, August 28, 1911.

The unforeseen profits of the war years rendered superfluous this effort at self-protection, and the stockholders were not again faced with the situation of getting out from under until 1925. As will be shown later, the differing circumstances of that year necessitated a more complicated technique.

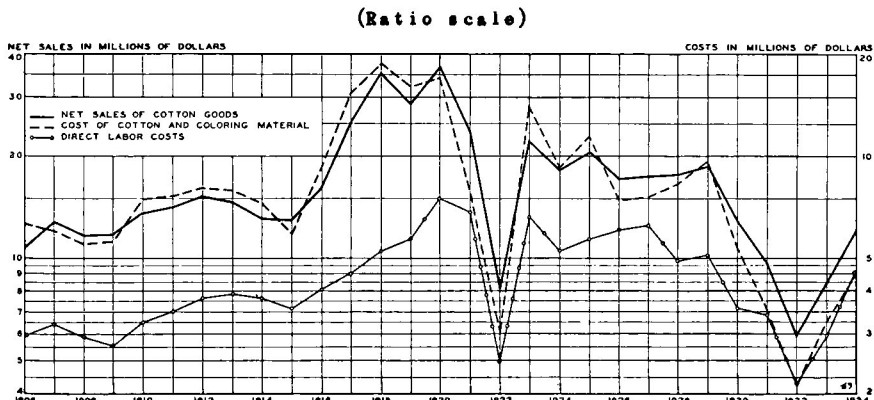
THE WAR YEARS, 1915-18

The high profits of the war years constituted an appreciable portion of the cash surplus which in the post-war depression became the cynosure of the stockholders. For this reason it is important to trace the source of these profits and the accumulation of the surplus.

In 1915 and 1916 the cotton section again failed to earn its dividend disbursements, the deficit amounting to \$196,000 in the latter year. These deficits, however, were more than offset by the substantial surpluses earned by the worsted section.

The poor showing of the former is explained by reference to figure 4. Here on a semilogarithmic scale are plotted the dollar value of net sales, the cost of cotton and coloring material, and the direct labor costs of cotton manufactures as entered in the Amoskeag accounting ledgers for the years 1906-34. From the initial year through 1914 all three curves are closely parallel, indicating that relative changes in each were about equal. But in 1915 and 1916 the rate of increase

Figure 4.- RELATIVE CHANGE IN NET SALES AND PRODUCTION COSTS,
FOR THE COTTON SECTION, 1906-34



Based on tables F-1, F-2, and
semiannual accounts of the
Amoskeag Mfg. Co.

WPA - National Research Project
L-44

in the cost of cotton and coloring material, particularly the latter, exceeded the rate of increase in net sales, that is, the rate of increase in the price of cotton goods.⁹ It is this disproportionate increase in material costs that curtailed earnings below the dividend requirements.

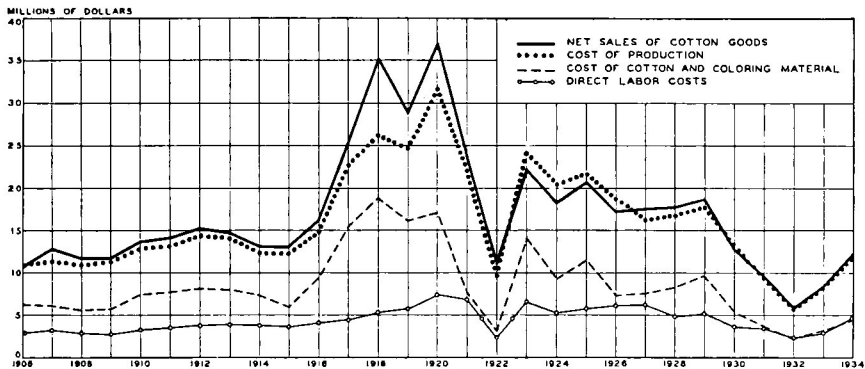
Thereafter, of controlling importance were the major divergencies in the rates of change of material costs and value of net sales compared with labor costs. The latter, even beginning with 1916, increased at a much slower rate than the other two and continued to lag through 1918. In the following year the value of materials and of net sales decreased somewhat, while labor costs continued to increase. Between 1920 and 1921 all three declined, with labor costs lagging also on the downswing. The rates of decline became equal in 1922 owing chiefly to the 9-month strike.

From this one would expect that in 1917 the lean years were left behind. Thus the cotton section in this year returned a surplus after dividends for the first time in 4 years. It amounted to \$731,704, while the surplus from the worsted section was \$487,000. In 1918 the war boom reached its peak, with the surplus from the cotton division alone amounting to \$4,790,483, more than six and one-half times the surplus of the previous year. The worsted section only tripled its surplus of 1917 by showing a surplus after dividends of \$1,460,603. Thus from manufacturing operations solely, Amoskeag reported for 1918 a surplus after dividends of more than \$6,000,000 - and this after the dividend rate had been increased.

In view of the relationships just outlined, the conclusion is inescapable that these profits resulted from the skyrocketing of prices of cloth, while payments to labor were increased only gradually. It was a clear case of profiting from war prices and Government orders. The gross-profit margin that these differential rates of increase made possible is shown in figure 5 by the area between the curve of net sales and the curve representing the total production costs including changes in inventory. Although figures in sufficient detail are not available for the worsted section, there is no reason to believe that the relationships were different from those in the cotton section.

⁹The increase in the dollar value of net sales may be taken as a conservative indicator of the increase in the price of cotton goods since physical production was decreasing during the same years (table 13).

**Figure 5.- NET SALES AND PRODUCTION COSTS,
FOR THE COTTON SECTION, 1906-34**



Based on tables F-1, F-2, and
semiannual accounts of the
Amoskeag Mfg. Co.

WPA - National Research Project

L-45

THE POST-WAR YEARS, 1919-25

The general post-armistice depression affected Amoskeag's cotton section in 1919 by reducing its surplus after dividends to \$2,084,963, a reduction of more than one-half over the record surplus of the preceding year. In the worsted section the curtailment was still more severe, and it exceeded its dividend payments by only \$28,256. In the following year, 1920, the prosperity induced by the transition from clothing soldiers to clothing ex-soldiers still prevailed in the cotton section, with earnings about equal to those in 1919. But with the stock split up 2 to 1, dividend payments were proportionately increased so that there was only \$1,106,000 as a surplus.¹⁰ Adverse conditions, on the other hand, continued in the worsted section as evidenced by an operating profit of \$45,433, which meant that there was a deficit of \$706,366 after dividends. Depressed conditions, however, caught up with the cotton section in 1921 when earnings were only slightly more than half of the dividend requirements; about five-eighths of

¹⁰In this respect Amoskeag followed a widespread practice. "... the cotton textile industry followed other American industries in interpreting the United States Supreme Court decision, *Eisner versus Macomber*, by which stock dividends were held not to be taxable as income, as an occasion for freely capitalizing surplus through the issuing of stock dividends. ... A cursory check of cotton mills which issued stock dividends during these years [1920 to 1923] gives a list of 156 firms, representing 11,451,000 spindles, or approximately 30 per cent of the industry. The capital stock of these mills was increased from \$215,107,000 to \$383,603,000, an average increase of 80 per cent.

"The justification of such action was presumably the reinvestment of earnings in the business, especially during the War, when the Excess Profits Tax and the fear of other taxes and further demands from labor made it desirable to keep dividends down." Stephen J. Kennedy, *Profits and Losses in Textiles* (New York: Harper & Brothers, 1936), p. 131.

the dividend requirements in the worsted section were earned. Owing to the 9-month strike in 1922, each section sustained an operating loss from manufacturing before dividends; these losses amounted to \$363,483 in cotton and \$162,772 in worsted.

Since no fundamental adjustments after the strike of 1922 were undertaken by Amoskeag, it continued to fail to earn its dividend requirements. Indeed, in 1924 the combined loss of both sections before dividends was more than \$4,000,000. Dividends of \$1,227,600 were nevertheless paid, although the dividends on the common stock were omitted in the second half of the year. For the 6 months ending May 31, 1925, the cotton section again sustained a heavy operating loss amounting to \$1,219,000, although an operating profit of \$643,592 was earned by the worsted section. Despite the continuance of substantial losses, there still remained on this date a cash reserve in the neighborhood of \$25,000,000. Because of the importance of this cash reserve in subsequent developments, it is necessary to trace its accumulation.

Accumulation of Cash Reserve

On December 1, 1911, immediately after the transformation of the corporation into a trust, the reserve for shareholders was entered on the books as \$11,310,000, presumably representing the accumulated surplus over 80 years of operation. On May 31 of the following year \$210,000 was transferred to this reserve from manufacturing accounts. There were no further entries until May 1918 when \$4,939,299 was added to the reserve and withdrawn from the wool account with the explanation that this was done "to make the book value of wool equal 10 cents per lb." That is, it was a profit on inventories of raw material due to speculative price increases. An entry of the same character amounting to \$1,285,518 was made in November of the same year. Thus over \$6,000,000 was added to the reserve for shareholders in 1 year merely from the revaluing of raw-material inventories. In this manner the reserve for shareholders was brought up to \$17,744,817 on December 2, 1918; it remained at that figure until May 1925.

To get some idea of the total surplus that existed at this date, it is necessary to consider, in addition to the reserve for shareholders, sums contained in at least four other accounts. One such account was the interest account in which

was entered income from investments. From December 1, 1912, to May 31, 1925, income from this source amounted to \$6,912,007.¹¹ Another account is that headed "guarantee", which was created by setting aside 3 percent of the value of net sales. From December 1, 1911, to May 31, 1925, there had accumulated in this account \$1,903,483. Profit and loss was another account. On this terminal date there would have been a loss of \$5,020,794 if some \$6,300,000 had not been transferred to this account from the interest account. The highest amount in this account was a profit of \$8,341,000 in May 1920. It was converted to a loss of the above magnitude by the payment of income and excess-profits taxes, the shrinkage in the value of its security investments, the purchase of the Stark Mills, and the payment of dividends in the immediate post-war years in the face of low earnings or outright manufacturing losses. There was also \$3,000,000 in a suspense account created *ad hoc* on November 30, 1918, apparently as an offset against the value placed on its land, water power, mills, and machinery in the trial balance of November 29, 1911.

The surplus in May 1925 would be the algebraic sum of the amounts in these four accounts plus the reserve for shareholders. The surplus on this accounting would be \$24,539,513. It is interesting to note that on the same date its investments in securities, almost exclusively United States Fourth Liberty Loan Bonds valued at \$85, were carried on the books at \$25,500,000.

Decline in Activities

Despite the fact that these were years of rising raw-material prices, Amoskeag sustained the heavy losses already noted. It was clearly a period of declining activity. Production in the cotton section, for example, declined from 188.7 million square yards in 1917 to 125.4 and 110.2 in 1923 and 1924, respectively. The decline in the worsted section from the wartime level was even more severe: from 14.1 million square yards in 1917 to 6.2 and 7.8 in 1923 and 1924, respectively. It is but natural that the decrease in the weekly average number

¹¹The accounting in this instance begins with December 1, 1912, rather than with December 1, 1911, because in the fiscal year 1911-12 the balance in the interest account was transferred to the profit-and-loss account.

employed by Amoskeag should have been more moderate than the curtailment in production. Thus the average number employed during the last 6 months of 1923 was 10,322 compared with 12,515 in 1917 and 11,998 in 1924. In the pre-war years the average number employed had been about 13,500.

The Amoskeag trustees, of course, were aware of the shrinkage in operations and the expansion of losses. Their recognition of this situation, as well as their appreciation of the more basic difficulties affecting the industry (which have been set forth previously), prompted them to pass the dividend on common stock in October 1924. The treasurer of the company in his report to the stockholders at this time took occasion to state

that prudence and the best interests of the concern compelled them to omit the dividend upon the common shares. . . . The losses of the past year and the uncertainty of the cotton industry for the immediate future makes the passing of the dividend imperative. The most unfortunate part of it all is, I'm unable to tell you at this moment anything which might encourage you as to an improvement of conditions in the immediate future.

The situation, however, was not yet critical for

fortunately in the better years gone by, a reasonable surplus [upwards of \$25,000,000] had been retained for just such times as these which enables a proper upkeep and has justified the Board in making a division [payment of dividend on preferred shares] which otherwise would not have been possible. They, [the trustees] trust the owners will agree the preservation of the property and the maintenance of its resources [are] of greater importance.

The reason given for the poor showing was the high cost of cotton and of manufacturing. "These figures [losses in 1924] show that the period under discussion offers an excellent illustration of the restrictive effect of high prices for cotton and the high cost of manufacturing combined."

Losses in the cotton section, which amounted to twice the profits in the worsted section, continued in the 6 months ending May 31, 1925. To meet the problems effectively, it would have been necessary to shift production from the manufacture of high-grade staples, particularly gingham which had been the Amoskeag mainstay, to the manufacture of styled fabrics. The Amoskeag agent in charge of operations made this much clear to the workers through their representatives assembled in

convention in accordance with the Plan of Representation (see appendix C). According to the minutes of this meeting, he commented that "staple gingham, as far as we are concerned, is hopeless. . . . Diversification is what Mr. Straw is interested in, manufacturing fancy goods such as striped flannels and rayon."¹²

To make such a shift would involve "revolutionary changes", as the *Boston News Bureau* remarked at this time.¹³ But it was the financiers of Boston, not the manufacturers of New Hampshire, who controlled the destinies of Amoskeag at this time, as they had throughout its history.¹⁴ They knew that the Amoskeag mills had been operating at a considerable loss and that the prospects for profitable operations with the same set-up were poor indeed. They knew also that Amoskeag possessed a cash surplus in the neighborhood of \$25,000,000. More than half of this had been accumulated in the war years from profits obtained chiefly through increased raw-material prices and from Government orders. The existence of such a large surplus would have made it possible to improve efficiency by modernization of plant and equipment and to seek new markets by experimentation in new designs, constructions, and processes. At best, however, this would have converted losses into moderate profits. With much less risk, the financiers knew how to earn moderate profits for the stockholders from a surplus of this size by other methods. Plans to accomplish this purpose were devised and put into operation in the summer of 1925.

THE FINANCIAL REORGANIZATION OF 1925

The underlying principle was that of budding fission: to have two companies where before there had been one. The assets were to be so segregated that one company would own the mill property and some of the cash surplus, while the other company would own \$18,000,000 of the cash surplus and operate as an investment trust. Control of both companies, of course, was to rest with the same group of financiers. The mechanics of the transaction are not without interest.

¹²Minutes of the Joint Convention of Employee Representatives, September 19, 1925.

¹³Quoted in the *Manchester Union*, July 3, 1925. For full quotation see p. 30.

¹⁴Alan R. Sweezy, "The Amoskeag Manufacturing Company," *Quarterly Journal of Economics*, Vol. LII, No. 3 (May 1938).

A new trust was formed on August 25, 1925, patterned after the trust formed in 1911. It was called the Amoskeag Manufacturing Company and was to be an operating trust. The old trust had its name changed to the Amoskeag Company. The new company was formed to operate the mill properties and the old company to manage the investments. The conveyance of property was accomplished, according to Special Master Arthur Black, by the appointment of "dummy" trustees who held office only for one day.¹⁵

On the financial side the procedure involved a write-up of assets. "The fixed assets of each mill," according to Mr. Black, "were valued by a competent engineer of the highest standing, on the basis of replacement cost, less depreciation. There is no question of the accuracy of this valuation." The plant was set up on the books on the basis approved for Federal income-tax purposes. On this accounting, mills, machinery, land, and water power that had been on the books at \$3,000,000 were now valued at \$27,040,452, with a depreciation allowance of \$12,560,132 against which there was no reserve, making the net value of the fixed assets equal to \$14,480,320. Similarly, cotton and wool (raw, in process, and finished) which had been carried much below current market prices were revalued at current prices. This involved a mark-up from \$2,400,000 to \$12,600,000. Together with other inventories, the net write-up¹⁶ roughly equaled the depreciation allowance. Almost \$6,000,000 in accounts receivable, as well as \$6,000,000 in cash, were turned over to the new company. Some \$40,000,000 in Amoskeag assets were conveyed to the new company.

At the same time, it was decided to merge Amoskeag with the Parkhill Company with its cotton and worsted mill in Fitchburg, Massachusetts, and cotton lands in Arkansas. According to Mr. Black's findings:

No one seems to have taken the matter very seriously except a shareholder in the Old Trust, who at the meeting of shareholders, ostensibly called for the purpose of considering this matter, moved that the meeting be adjourned for two weeks so that shareholders could find out what the capacity of the

¹⁵Special Master Arthur Black, *Report on Objection of Eliza S. Leland to Debtor's Report on Claims, In Re: The Amoskeag Manufacturing Company, Debtor, Corporate Reorganization No. 58,599*, District Court of the United States, District of Massachusetts, 1938, pp. 4-5.

¹⁶It is interesting to note that about a month prior to the write-up in assets, the Manchester Board of Assessors had reduced the assessed valuation of Amoskeag property by \$2,760,000. *Boston News Bureau*, May 22, 1925, p. 18.

Parkhill mill was, whether it was making money or losing, and what, if any, interest trustees of the Old Trust had in the Parkhill property. This motion was promptly voted down and the plan approved as it had been developed weeks before. If there was any advantage to be gained from the ownership of Parkhill nobody ever tried to prove it.

This plant was immediately closed down after a net loss of \$3,200,000 from the operation and liquidation of the Parkhill plant and the Delta Land Company. A suspicion that the merger was one of personal accommodation rather than of economic advantage to Amoskeag is created by the fact that the Parkhill specialty was the manufacture of fine gingham. That is, at the very time that Amoskeag was painfully aware that there was a sharply reduced demand for gingham,¹⁷ it added to its capacity to produce gingham.

This merger was made, however, only after the Parkhill assets had also been very considerably marked up. The extent of the mark-up is not known, but the valuation of the assets transferred to the new company was placed at almost \$5,000,000 after allowance for depreciation.

The new company, the Amoskeag Manufacturing Company, took possession of these assets revalued at about \$45,000,000, including \$6,000,000 in cash, by issuing 285,000 shares of preferred and 365,000 shares of common stock, each without par value. Of this number, 20,280 shares of preferred and 35,000 shares of common stock were received by the former owners of the Parkhill properties. The remainder of the stock, slightly more than 90 percent, was received by the old trust, now called the Amoskeag Company, which had retained \$18,000,000 in Liberty Loan bonds. The mark-ups in assets minimized the seriousness of the withdrawal of \$18,000,000 in working capital, eight-ninths of which could be regarded as a reserve for depreciation of plant and equipment.¹⁸

¹⁷U. S. Congress, House of Representatives, *Investigation of Real Estate Bondholders' Reorganizations*, Public Hearings Before a Subcommittee of the Select Committee (Hon. Adolph J. Sabath, chmn.), 74th Cong., 2d sess., Sept. 30 and Oct. 1 and 2, 1936, Part 18, p. 172.

¹⁸From this analysis, it appears that Judge Black is in error when he states that "in the first report to shareholders of the Old Trust there was given an 'opening trial balance' of the Operating Trust in which the plant was marked down to \$18,500,000" from \$38,500,000 (\$33,000,000 for Amoskeag and \$3,500,000 for Parkhill). Actually this does not represent a mark-down. The higher figure is the value of the plant on a reproduction cost new basis; the difference represents depreciation. Since neither Amoskeag nor Parkhill had depreciation reserves, the value of the plant turned over to the new company was only \$18,500,000. Thus, in a balance sheet of June 1, 1925, prepared by certified public accountants for the bondholders' committee, the value of the Manchester plant less depreciation was entered as \$14,480,319 and the value of the Parkhill plant after depreciation as \$1,971,617, which equals Judge Black's total of \$16,500,000.

Within less than a year the trustees were no longer agreed that "the preservation of the property and the maintenance of its resources [are] of greater importance." The plant minus \$18,000,000 in cash assets was set "on its own legs to win or lose." The very withdrawal of this money, of course, greatly affected its chances to win, but if it should make a profit, the old Amoskeag Company would benefit by virtue of its stock ownership.

In Mr. Black's opinion, "this plan was primarily intended to conserve the cash assets of the Trust from the risk of manufacturing. . . . It was under no obligation to stand idly by while the cash accumulation of a hundred years was eaten up in a losing operation." The trustees by these acts had definitely embarked on a course of liquidation. Thereafter, their policy, whether deliberately conceived or not, was one of administering temporary stimulants to keep the company in operation.¹⁹

In addition to sustaining losses in the second half of 1925 equal to those in the first half, the operating loss in the cotton section in 1926 was almost \$2,200,000 as against an operating profit of \$615,000 in the worsted section. Even the dividends on the preferred shares were omitted in this year. With the cyclical upswing in 1927, however, both sections had operating profits aggregating nearly \$1,500,000, the first since 1923.

A shrinkage in production and employment also persisted in the interval after 1924. For example, cotton production in 1927 was 118.3 million square yards compared with 130.4 in 1924 and with 84.5 in 1925 which was about equal to the low point in the great depression. The curtailment in employment was more regular. In 1927 the average weekly number of persons employed was 9,145 compared with 11,998 in 1924 and 9,271 in 1925.

These were the results that obtained despite continued pressure to reduce costs, pressure from which the city and State governments were not immune. In February 1927 the municipality passed a resolution calling on the Board of Assessors, the State Tax Commission, and the legislators "to encourage owners and managements of industries 'affording employment to our people' and to 'recognize the dangers of high valuations

¹⁹For a discussion of the application of the stimulants, see appendixes C and D.

upon industrial plants."²⁰ Two months later the New Hampshire Legislature considered legislation that would exempt raw material from taxation and permit the cities and towns to abate all or portions of manufacturing stock in trade from municipal taxes.²¹ In the following month, May, the Manchester Board of Assessors, realizing that the "depression in the textile . . . industry could not be overlooked any longer", reduced the valuation of the Amoskeag mills and machinery by \$5,300,357 and stock in trade by \$2,037,267.²²

A final effort was also made to revive the gingham market. To this end, Amoskeag contributed \$10,038 in 1927 to a gingham advertising campaign, but apparently without any beneficial results to itself.²³

THE FINANCIAL REORGANIZATION OF 1927

Despite the readjustment downward of specific wage rates, the lightening of the tax payments, and the improvement in textile business evident in 1927, the trustees apparently did not feel justified in revising their estimate of Amoskeag's ability to survive.

A proposal of liquidation was made by certain New York interests in the summer of 1927. It called for a 60-day option to purchase the stock of the Amoskeag Company at \$100 a share for its preferred stock and \$90 a share for its common stock (which was selling at around \$60) plus whatever additional amount might be realized for the common stock after the liquidation of the quick assets and the payment of expenses and of a banker's commission. This would have entailed liquidation of the mill properties of the Amoskeag Manufacturing Company through the liquidation of the Amoskeag Company, which at this time was the holding company of the former.

Though the offer was rejected by the trustees of the Amoskeag Company, nevertheless it served to make a telling point. The stockholders of the manufacturing company were sustaining a continuous shrinkage in assets, and, according to the predictions of the treasurer, would continue to do so. Why not then liquidate and enable the stockholders to invest their

²⁰*Boston News Bureau*, February 17, 1927, p. 1.

²¹*Ibid.*, April 5, 1927, p. 2.

²²*Ibid.*, May 26, 1927, p. 4.

²³*Report to the Bondholders' Committee*, Schedule B-3 (report prepared for the company by Stewart, Watts, and Bollong, public auditors in Boston).

cash in "live securities"? Subsequent actions of the trustees indicate their full agreement with this point of view. Their objection to this proposal was simply that the terms were not sufficiently lucrative.²⁴ Among the reasons given by the trustees at a stockholders' meeting for the rejection of this offer were the following:

"It has never been their intention to abandon operations in Manchester and bring to the City the disasters such a move would entail." "The concern has existed here ninety-six years. It has always been favored with a reasonably good management, quite competent to manage its own affairs, without the volunteer assistance of outsiders."

"With your assistance and the Community's support we propose to stay in business if it is possible to do it without loss of assets." "Failing to do so profitably we will ask your authority to discontinue in an orderly manner."

"There is no occasion for the owners of this property to pay anyone, or make anyone presents for liquidating their property."

The meeting then passed a vote *"authorizing the trustees, if they deem it wise, to liquidate in their discretion, the whole, or any part, of the assets of your company, upon such terms and conditions as they deem for the best interests of the shareholders."*²⁵

The trustees made almost immediate use of this authorization to liquidate. The plan entailed financial liquidation on terms that did not involve the immediate physical dismantling of the mills, but which withdrew further capital from the operating company. Mr. Black's description of this plan and its effects is an authoritative statement and accordingly is quoted at some length:

It [the plan] reached final form at least as early as November 14th, 1927, when a meeting of the shareholders of the Operating Trust was called for November 21st, 1927. Notice of this meeting contained all the details of the plan which required action by the Operating Trust.

.....

Plan for Bond Issue

At the first meeting, Mr. F. C. Dumaine, doing double duty as trustee and treasurer of both Trusts,

²⁴Another objection has been mentioned by Alan R. Sweezy (*op. cit.*, p. 487), who points out that the treasurer was receiving from Amoskeag at that time the part-time salary of \$100,000.

²⁵Quoted in Black, *loc. cit.*

recommended that the Operating Trust buy in its whole issue of 285,000 shares of preferred stock for \$8,135,076 in cash, plus \$14,665,000 in twenty-year 6% bonds and 13,191 additional common shares.

The trustees, subject to the approval of the shareholders, unanimously adopted resolutions to amend the Declaration of Trust, buy in the preferred stock, issue the bonds and additional common stock, and list the shares of the Trust on the Boston Stock Exchange.

At the second meeting a certified copy of all these resolutions, with full detail, was presented to the shareholders of the Operating Trust at Manchester, at twelve o'clock noon. By affirmative vote of every share of both preferred and common stock these resolutions were "in all respects approved, ratified and confirmed."

Two hours later, at Boston, the trustees of the Old Trust held the third meeting of the day. Mr. Dumaine, now acting as treasurer and trustee of the Old Trust, reported what had transpired at the two previous meetings. The news was not entirely unexpected, because the trustees had already prepared a plan for the voluntary liquidation of the common stock of the Old Trust. This plan was described in a printed circular to their shareholders, bearing the same date. This circular stated the terms on which the Operating Trust had voted to buy up its preferred stock and explained an option by which holders of common stock in the Old Trust might liquidate their holdings of such stock by accepting for each share \$52 in cash, \$40 in the newly issued bonds of the Operating Trust, and one share of common stock in the Operating Trust.

Nothing in the foregoing recital is intended to indicate any impropriety or irregularity. The meetings appear to have been duly called and carefully conducted. The records are complete.

Old Trust in Control

It is intended, however, to show that this entire plan was conceived by the trustees of the Old Trust and carried through by them to its final consummation.

The circular goes on to say: "Your trustees have had two objects in mind: 1. To distribute to such common shareholders as wished their proportion of the Company's assets, thereby preventing anyone else acquiring them below their true value. 2. To secure the continued operation of the works to Manchester and New Hampshire, without danger of wasteful wrecking." "The plan places the plant where it should be, upon its own responsibility. to succeed or fail."

"The plan now presented is the result of long and careful consideration and has been adopted by the Board as being in their judgment advantageous for the shareholders."

The plan is thus frankly acknowledged by the trustees of the Old Trust as their own scheme for helping their own shareholders.

There is no escape from this conclusion. The mill was losing money. There was no change in sight. Outside interests had begun to talk liquidation. Doubtless many stockholders of the Old Trust were discouraged. It might be better to get something out of the Operating Trust before it was too late. The Old Trust owned ninety per cent of the preferred stock of this losing concern. It was decided to trade that stock for cash and bonds. Parkhill interests, which owned the small balance, were glad to make the same trade.

Purpose of Bond Issue

This plan, sometimes referred to as a recapitalization, was really devised as a hedge. It withdrew \$8,000,000 more from the risks of manufacturing. It gave the timid ones a chance to get their money and quit. It gave the bolder ones a chance to gamble with greater security. They still controlled the Operating Trust through its common stock. They could get the profit from any business improvement through that medium. If the worst came, they had their bonds. They had exchanged a proprietary interest for that of a creditor.

Any claim then or now made that this bond plan was to assist the Operating Trust is not true. It was the final step in the safety-first campaign started two years before when the "segregation" of the manufacturing properties was first made.

.....

No Saving Effected by Bond Issue

It has been claimed in argument that the exchange of preferred stock for bonds was expected to effect a large saving to the Operating Trust because the dividends on \$28,000,000 of preferred stock exceeded the interest on \$14,000,000 of bonds. This argument fails when we consider that there had been no payment of preferred dividends and probably would be none for the reason that the company never had earned a penny and had no good prospects. On the other hand, the interest charge on the bonds became a fixed charge on the capital of the Company and was in fact paid out of capital for about eight years.

Withdrawal of Capital Under Guise of Interest Payment ^s

In reality the bond issue allowed the owners of this Operating Trust to exchange a portion of their

capital or proprietary interest for promissory notes and then to withdraw, under the guise of interest payments, nearly fifty per cent of the capital so represented.²⁶

The purchase of the common shares of the old trust was not without its benefits in more ways than one. The trustees were not only assured of continued control, but also under an option which they offered to themselves they stood to make a good profit.²⁷

Although the *Textile World* could say editorially ("Significance of Amoskeag Recapitalization") that the "recapitalization plan" (*sic*) involved only the "distribution of the quick assets that are not essential to the successful operation of the manufacturing company",²⁸ there can be no doubt that the competitive position of the manufacturing company was seriously impaired by these financial transactions. As the special master pointed out, it lost \$8,000,000 in operating capital without receiving any *quid pro quo* whatever. On the contrary, its costs were increased, because where formerly it was only morally obligated to pay dividends on the preferred stock, now it was legally obligated to pay some \$680,000 as interest on the bonds, which the holding company decided should be issued by the manufacturing company. Its ultimate liquidation was now a certainty.

AMOSKEAG IN THE DEPRESSION AFTER 1929

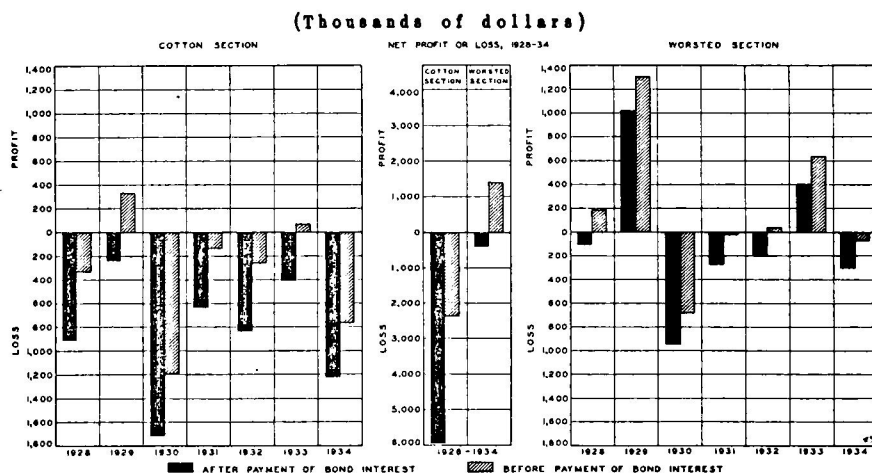
The trustees were probably not surprised that the company continued to sustain losses. In 1928 both the cotton and the worsted sections reported operating losses after bond interest. The aggregate of the losses was more than a million dollars, of which upwards of 85 percent was due to interest payments. Even in 1929 the cotton section failed to earn its share of the interest payments. The worsted section, however, cleared more than a million dollars after interest disbursements. Upon the basis of this profit the company paid dividends amounting to \$366,000 for the first time since its reorganization in 1925,

²⁶Black, *loc. cit.*

²⁷Some idea of how profitable these transactions were to certain trustees acting in their own behalf may be obtained by reference to the following: Black, *op. cit.*; Marquis W. Child, "Great Amoskeag Textile Corporation Quits Business With Tragic Results," *St. Louis Post-Dispatch*, August 2, 1936, part 8, p. 3J; *Investigation of Real Estate Bondholders' Reorganizations*, p. 82.

²⁸Vol. LXXII, No. 22 (Nov. 26, 1927), p. 39.

Figure 6.- ANNUAL PROFITS AND LOSSES BEFORE AND AFTER THE
PAYMENT OF BOND INTEREST, FOR THE COTTON
AND WORSTED SECTIONS, 1928-34



Based on tables 12, F-2

WPA - National Research Project
L-46

and a bonus of \$356,000 to its operatives. The latter represented 4.4 percent of the wage bill of 1929.

The effect of the great depression on Amoskeag is clearly revealed by a few statistics on corporate earnings and employment. In the very next year (1930) the largest loss of the depression was incurred, more than \$1,700,000 for the cotton section and \$949,000 for the worsted after the payment of \$790,000 in bond interest. Losses reported by each section were somewhat reduced in 1931, the aggregate amounting to \$905,000, of which \$750,000 was bond interest. Since the cash surplus had been syphoned off, these losses could be paid only out of capital. Inventories of goods in process and of finished goods on hand declined some \$3,200,000 in the years 1930-31.²⁹

These losses had their counterpart in declines in the volume of employment. Thus in 1929 the aggregate of man-hours worked was 21.3 millions. In 1930 the total man-hours were 15.4 millions, which increased to 16.7 millions in 1931. In other

²⁹That this was not in any large part due to the lowering of the unit price is evident from the statistics on physical inventories. Thus on December 31, 1929, there were 23.7 million square yards of cottons on hand and only 13.0 as of December 31, 1931. Worsted dress goods on hand on the former date were 520,843 square yards compared with 497,950 on the latter. Physical inventories were not restored to the 1929 level until 1933 and 1934. These statistics were taken from semiannual accounts in the treasurer's office.

words, the volume of employment had been reduced by 28 percent between 1929 and 1930 and by 22 percent between 1929 and 1931. The shrinkage in the average number of persons employed was only slightly less.

The depth of the depression in terms of employment was not reached, however, until June 1932, when in one week only 4,019 persons were employed. Although by the latter part of this year a decided improvement had occurred, nevertheless each section sustained losses which totaled more than a million dollars for the year; three-quarters of this represented bond interest. The sources of payment appear to have been cash, investments, and accounts receivable which were reduced by \$1,177,000 during this calendar year.

With wages down to what appeared to be an irreducible minimum, the only hope of relief was in the reduction or elimination of the fixed burden of the bonded indebtedness. Since the current market price of the Amoskeag Manufacturing Company's bonds at this time was between 38 and 41³⁰ and since the Amoskeag Company retained only \$3,600,000 worth of the original issue of \$14,000,000, it involved little sacrifice for the trustees to offer the bondholders a plan for the conversion of bonds into cash for 35 percent of their value and into preferred stock for the balance.³¹ The bondholders, however, were not responsive to this idea, and no other similar proposal was proffered until 3 years later.

AMOSKEAG UNDER THE NRA TEXTILE CODES

At about the same time the pre-NRA boom, which Amoskeag shared with the industry in general, was gaining momentum. The average weekly number on the pay roll in January 1933 was 6,988, and a gradual expansion took place until in June of the same year the weekly average was 8,259, an increase of 18 percent. This occurred chiefly in the cotton section. Even this understates the extent of the upturn, for the percentage increase in the weekly average of man-hours worked over the same period was 28.

Whether it was in spite of or because of the NRA textile codes, which became operative in July, the volume of production

³⁰*The Annalist*, January 13 and 20, 1933.

³¹"Cotton Mill News," *Textile World*, Vol. 83, No. 1 (Jan. 1933), p. 95.

at Amoskeag continued to rise in both the cotton and worsted sections through the second half of 1933. The volume of production in the worsted section, however, declined through most of 1934, while production in the cotton section, despite the national textile strike in September, slightly exceeded the poundage manufactured in the previous year.

Because of the shortening of the workweek the number employed increased at a greater rate. The average weekly number employed in the cotton section in 1933 was 28 percent larger than the average in 1932, and in 1934 the average exceeded the 1933 average by 33.5 percent. In the worsted section the 1933 average was some 33 percent larger than the average of the preceding year, but in 1934 there was a decline of 14.2 percent from the 1933 average. Those employed in maintenance work, machinery repairing, and clerical tasks also gradually expanded in numbers from 540 in July 1933 to a high point of slightly over 800 in November 1934.

The financial record, for the most part, was not in keeping with the upturn registered by the production and employment figures. For example, the cotton section showed an operating profit of only \$60,000 before its share of the interest payments. The worsted section, on the other hand, after the payment of some \$233,000 in bond interest, had an operating profit of more than \$400,000. In 1934 this gave way to an operating loss of about \$70,000 before interest payments because of the decline in production; the loss before interest payments in the cotton section, however, was upwards of three-quarters of a million dollars despite the fact that the 1933 level of production had been sustained.

This result is counter to expectations since the general effect of the Cotton Textile Code was to narrow the wage differential between the southern and the New England mills, much to the competitive advantage of the latter; under such circumstances a rising volume of business would be expected to yield some profits, as was the case in the worsted section in 1933 before the decline in volume of business in the following year. The effect of the code wage rates at Amoskeag, however, was quite the contrary. As is shown in appendix D, the code wages in cotton textiles tended to widen somewhat the wage differentials between Amoskeag and the southern mills, to the

competitive disadvantage of the former. For this reason, new orders did not bring Amoskeag out of the red.

It has already been mentioned that in the calendar years of 1931 and 1932, in the absence of a cash surplus and in the presence of large operating losses, the bond interest was paid by liquidating inventories and accounts receivable. In 1933 the operating profit from the worsted section was almost sufficient to meet the interest payments. Nevertheless, because of the rise in the volume of production and business, it was necessary for Amoskeag to borrow \$1,500,000 from the bank on unsecured notes to restore its depleted inventories and accounts receivable to an adequate level.

In the following year an operating loss of about three-quarters of a million dollars was incurred before interest payments of the same amount. Accordingly, an additional \$4,000,000 was borrowed in 1934, still on an unsecured note, from the First National Bank of Boston, of which Mr. Dumaine was a director. It was used not only to buy supplies and raw materials and to give credits but also to pay the bond interest.³²

On April 2, 1935, the initial bank loan of \$1,500,000 owed to the National Shawmut Bank was paid off in cash, and the \$4,000,000 owed to the First National Bank was reduced by \$1,000,000 on the same date and a renewal was asked for the balance. Mr. Dumaine stated: "They said that in view of the fact that the assets had fallen below the face value of the bonds they [the bank] would have to have collateral."³³ Amoskeag agreed to pledge its accounts receivable, and the note was renewed. In December 1935 when Amoskeag sought refuge under section 77B of the Federal Bankruptcy Act, all but \$30,000 had been repaid to the bank. According to Mr. Dumaine's testimony before the Sabath Committee, the decision to begin liquidations was made at the time of the renewal of the notes.³⁴ In other words, after withdrawing a cash surplus of \$26,000,000, the structure was brought to the ground by the gradual withdrawal of circulating capital.

Thus the concessions by the workers in the form of wage cuts and the stretch-out over a period of years (see appendixes B-D)

³²*Investigation of Real Estate Bondholders' Reorganizations*, p. 93.

³³*Ibid.*, p. 95.

³⁴*Ibid.*, p. 96.

were inadequate to maintain mill operations in the face of the diversion of capital resources, the imposition of unproductive financial burdens, and the general business depression. Had this financial policy made for sustained employment before the shut-down, it might have had more justification. But the available data show (appendix E) that in addition to continuously declining wage rates, long hours, and increased job assignments the post-war period was characterized at Amoskeag by work for a declining number of persons and by widespread intermittent employment.

Once the decision to shut down was made, it did not take long to process inventories on hand. The 1935 peak of employment, 11,014 persons, occurred in the week ending March 8. In the course of the month about 1,000 were laid off and about double that number were laid off in April. During May employment was stabilized around 7,500, but by the end of June this figure was reduced to 6,400. The invalidation of the NRA at this time could have no effect on the trend. Under 5,000 were employed the last week in August and less than 1,000 by September 15, which may mark the date of the virtual shut-down of the Amoskeag mills.

Lay-offs of such magnitude could have the effect only of causing a sharp rise in the Manchester relief load (table F-3). So sizable was this increase that it was called to the attention of the Federal Administrator of Emergency Relief, who invited the treasurer of the company to Washington early in September. According to the latter's testimony, "they wanted to know what could be done. I told them the bondholders had to be taken care of; the bonds were out."³⁵ The treasurer was referred to the office of the Reconstruction Finance Corporation. The latter examined the trial balance of Amoskeag and decided:

"That is a clean, straight trial balance, but these bonds are in the way. We can't lend you money except underneath these bonds. You get rid of the bonds somehow and come back here."³⁶

This offer of the RFC was never accepted. In December 1935 the Amoskeag trustees decided to default on the bond interest. A bondholders' protective committee friendly to the trustees

³⁵*Ibid.*

³⁶*Ibid.*

was established, and the company petitioned for relief under section 77B of the Federal Bankruptcy Act. This is intended to facilitate reorganization in lieu of liquidation.

The trustees of the company in a statement to its bond- and shareholders under date of December 24, 1935, explained that reorganization was necessary because of the great burden of bonded indebtedness. Quoting from the petition which had been filed by the company, they stated: "The existence of the outstanding bonds [\$11,000,000] has required the continued payment of interest out of capital, has impaired the credit of the Company, and has resulted, together with other conditions, in making the Company, in the opinion of the Trustees, insolvent."³⁷ The letter further declared that "reorganization at the present time will leave the Company with sufficient assets and ample credit for possible future profitable operations" which will be carried on "only in that portion of the plant which can be economically operated, and . . . the balance of the plant or machinery not so needed will be disposed of as purchasers can be secured. Such anticipated revision of facilities will not seriously impair the maximum production of which the plant is now capable."

Not until March 9, 1936, did the company submit a plan for reorganization to the court. The plan had the approval of both the bondholders' committee and the committee representing the stockholders. It was proposed under this plan that general creditors other than bondholders should be paid in cash the full amount of their claims, a sum of \$67,319. The present common stockholders were to retain their stock. The bondholders were given a choice between two plans: Plan A, by which they would receive, in exchange for each \$100 of principal amount of bonds surrendered, one share of 5-percent noncumulative first-preferred stock retirable at call or in liquidation at 105 and 15 shares of new common stock; or Plan B, by which they would receive on the same terms \$50 in cash and one-half of a share of 4-percent noncumulative second-preferred stock retirable at call or in liquidation at 100.³⁸

³⁷Letter on file in the Amoskeag Room, Hamilton Smith Library, University of New Hampshire, Durham, New Hampshire.

³⁸*Proceedings for the Reorganization of a Corporation No. 58,589, In re: The Amoskeag Manufacturing Company, Debtor*, District Court of the United States, District of Massachusetts, March 9, 1936.

Although the bondholders were given the option of withdrawing their money under Plan B, they were urged to consider seriously Plan A. Unless 50 percent of the bondholders adopted the first proposal, the net quick capital would be too greatly reduced by the cash payment to permit the possibility of reopening the mills.

On April 6, 1936, the company's counsel reported that holders of 70 percent of the company's bonds and a majority of the stockholders had accepted the plan (more than half those accepting the plan elected Plan B). Included among these was the Amoskeag Company which owned 31.6 percent of the bonds and 24.7 percent of the common stock of the Amoskeag Manufacturing Company.

One month later, on May 4, the bankruptcy court appointed Arthur Black as special master to determine the feasibility of the company's reorganization plan. A hearing was scheduled for June 10. In the meantime the damage to the company's mills caused by the floods in March was estimated at \$2,500,000. To this sum must be added the \$2,300,000 to be paid to bondholders who had chosen Plan B. These withdrawals would have left only \$4,100,000 in working capital, an insufficient sum. Accordingly, the company withdrew the plan on June 10.³⁹ A month later (July 9) the special master recommended liquidation of the company since \$8,000,000 would be necessary to reorganize the mills and he found that the conditions in the textile market did not warrant such an expenditure.⁴⁰

The citizens of Manchester could no longer take refuge in the hope that the Amoskeag mills would be opened again through reorganization. Faced with the reality of liquidation, the Manchester Chamber of Commerce announced (on August 19) its vigorous opposition to any effort to "junk" the mills.⁴¹ This sentiment was crystallized in the incorporation by a citizens' committee of 17 of an organization known as Amoskeag Industries, Incorporated, for the purpose of purchasing the company's property. The members of the organization subscribed to \$500,000 worth of stock, the Public Service Company of New Hampshire agreed to repurchase the hydroelectric station,

³⁹"Amoskeag's Plan Wrecked by Flood," *The New York Times*, June 11, 1936, p. 37.

⁴⁰"Urges Liquidation of Amoskeag Mills," *The New York Times*, July 10, 1936, p. 27.

⁴¹"Will Fight Junking of Amoskeag Mills," *The New York Times*, August 20, 1936, p. 25.

canals, and water wheels of Amoskeag for \$2,250,000, and an equal amount was loaned by the local banks to complete the purchase price of \$5,000,000.⁴² The purchase included the mill units, tenements, goodwill, Merrimack River water rights, and other holdings in Manchester.⁴³

By September 15, 1936, Amoskeag Industries, Incorporated, was prepared to announce that it would offer mill space for lease or sale to any incoming industry that would guarantee to employ Manchester labor. There is irony in the fact that after 105 years of operation Amoskeag ended as it began, a real-estate-development corporation. Now, however, it had a different purpose. Over 100 years ago its energies had been directed toward transforming a hamlet into a city; now it was most earnestly concerned with preserving the economic basis of that city.⁴⁴

⁴²It is interesting to note that by virtue of this sale, the Amoskeag Manufacturing Company had a balance of \$13,700,000, sufficient to pay all claims including \$11,379,000 in bonds with accrued interest as well as liquidation costs.

⁴³"Utility Aids City in Amoskeag Deal," *The New York Times*, September 3, 1936, p. 29.

⁴⁴The degree of success that has attended its first efforts will be described in chapter V.

CHAPTER IV

EFFECTS OF THE SHUT-DOWN

During the year in which the Amoskeag shut-down occurred more than 17,000 persons had been employed by the company, although not more than 11,014 were at work at any one time. Of these, almost two-thirds were employed in the manufacture of cotton products, a fourth in the manufacture of worsteds, and the remainder in clerical and maintenance departments. The work force was almost equally divided in regard to sex of workers. Although no data are available on the nationalities represented in the 1935 work force, there is no reason to believe that they differed markedly from those prevailing in 1929 when a company census was taken.¹ At that time almost half of the workers were French-Canadians. Of the remainder, there were about equal proportions of native-born Americans, Irishmen, Poles, and other nationalities combined. Most of the workers had the specialized kind of industrial experience typical of textile workers throughout the country. Their occupational characteristics will be considered in this chapter in relation to the type of job opportunities that were available in Manchester and in relation to their reemployment experience after the shut-down. Some workers waited for the mills to reopen. Others migrated to neighboring textile towns. The majority of the workers displaced by the shut-down were unable to secure other jobs in the area, and consequently many were later found to be on public relief rolls.

DECLINE IN MANCHESTER'S EMPLOYMENT OPPORTUNITIES PRIOR TO THE SHUT-DOWN

The industrial structure of Manchester is apparent from the United States census taken in 1930 and adapted for Manchester in table 14. It is rather striking that even after a decade of declining job opportunity in manufacturing and of increasing employment in the various services and trade, almost 60 percent of those gainfully occupied reported their occupational

¹It may be noted that annual company censuses, 1911-29, show little change in the proportions that Americans, Irish, and Poles, respectively, were of the total. Greeks declined from 8.1 percent in 1911 to 4.6 percent in 1929, and French Canadians increased from 37.6 to 48.4 percent.

attachment to be in the manufacturing and mechanical industries. The next largest concentration, 12 percent, was in trade, and the remainder was about equally distributed among transportation and communication; clerical occupations; and professional, domestic, and personal services. Clearly, then,

Table 14.- DISTRIBUTION OF MANCHESTER'S GAINFULLY OCCUPIED POPULATION, BY INDUSTRIAL GROUP, 1930^a

Industrial group	Total		Men	Women
	Num-ber	Per-cent		
Total	34,446	100.0	22,270	12,176
Agriculture	285	0.8	284	1
Forestry and fishing	70	0.2	70	0
Extraction of minerals	13	0.1	13	0
Manufacturing and mechanical	20,312	59.0	13,340	6,972
Transportation and communication	1,704	4.9	1,553	151
Trade	4,153	12.1	3,467	686
Public service	718	2.1	709	9
Professional service	2,078	6.0	838	1,240
Domestic and personal service	2,686	7.8	1,074	1,612
Clerical	2,427	7.0	922	1,505

^a*Fifteenth Census of the United States: 1930, "Population" (U. S. Dept. Com., Bur. Census, 1933), vol. IV, p. 984.*

the fluctuations of employment in manufactures will explain in a large measure the fluctuations of employment opportunities in Manchester. These fluctuations are shown in table 15 where the average number of wage earners employed in manufactures, as reported to the *Census of Manufactures* for specified years between 1899 and 1935, are recorded for Manchester, Amoskeag, and New England.²

Just before the turn of the present century the number of wage earners in Manchester's manufacturing establishments was a little less than 18,000 and reached its peak (to the extent that this can be revealed by a discontinuous time series) in 1914 when, on the average, almost 26,000 persons were employed. In the first post-war year, 1919, there was a decline of a little more than 1 percent from the peak employment in 1914.

²Figures for Amoskeag wage earners have been adapted from company records and computed by the census method.

Table 15.- NUMBER OF WAGE EARNERS IN MANUFACTURING
ESTABLISHMENTS IN NEW ENGLAND, MANCHESTER,
AND AMOSKEAG, 1899-1935^a

Year	Number of wage earners					Index of wage earners (1914=100)			
	New England	Manchester				New England	Manchester		
		Total	Amoskeag	Non- Amoskeag	Percent Amoskeag is of Manchester		Total	Amoskeag	Non- Amoskeag
1899	947,645	17,862	n.a.	n.a.	-	83.1	69.1	-	-
1904	940,752	17,579	n.a.	n.a.	-	82.5	68.0	-	-
1909	1,101,290	24,735	n.a.	n.a.	-	96.6	95.7	-	-
1914	1,140,233	25,843	13,632	12,211	52.7	100.0	100.0	100.0	100.0
1919	1,351,389	25,512	12,076	13,436	47.3	118.5	98.7	88.6	110.0
1929	1,098,514	19,168	9,249	9,919	48.3	96.3	74.2	67.6	81.2
1931	850,132	16,270	7,160	9,110	44.0	74.6	63.0	52.5	74.6
1933	798,262	13,757	7,819	5,938	56.8	70.0	52.2	57.4	48.6
1935	911,022	12,856	5,575 ^b	7,281	(c)	79.9	49.7	(c)	59.6

^aFigures for Manchester and New England wage earners are adapted from Census of Manufactures data. Figures for Amoskeag wage earners are based on company records and computed by the census method.

^bThe average for the first 6 months was 9,331.

^cIn view of Amoskeag's final liquidation and shut-down in this year, a percentage would not be meaningful.
n.a. Data not available.

All manufactures in New England, on the other hand, did not achieve their peak employment until 1919, the peak figure being some 18 percent above the 1914 employment.

By the close of the "prosperous" twenties, however, employment in manufactures in all of New England had declined nearly 19 percent during the decade, while Manchester's employment showed a decennial decline of about 25 percent. Indeed, so drastic was the curtailment that Manchester's factories employed only 7 percent more persons in 1929 than in 1899, although its population during this period had increased by about 35 percent.

It is important to note, moreover, that although Amoskeag employment accounted for about 50 percent of Manchester's factory employment, Manchester's decline in employment opportunities reflected more than Amoskeag's gradual liquidation. Thus, between 1919 and 1929 Manchester's factory employment other than Amoskeag's sustained a decline of almost 26 percent compared with 23.5 percent for Amoskeag. In the earlier part of the general depression, however, non-Amoskeag employment declined at a less rapid rate than did Amoskeag's, but this trend was reversed in the latter part of the depression. With the general business revival, which was in progress from the middle of 1933 through 1935, non-Amoskeag employment increased some 23 percent, but it was still about 27 percent under the

level of employment that had obtained in 1929 - and this at the very time that half of the employment opportunities in Manchester's factories disappeared with the closing of the Amoskeag mills. Much the same situation characterized the New England region; that is, an expansion of employment in manufactures of 14 percent occurred between 1933 and 1935, but this represented a decline of 17 percent from the 1929 figure.

The full seriousness of the situation at the outset of the depression can be appreciated only when it is realized that in the services and in trade there was no employment gain sufficiently large to offset this loss as in other urban communities during this decade. There was a decrease in manufacturing wage jobs of 6,000 in round numbers between 1919 and 1929 and an increase of only 2,000 (between 1920 and 1930) in the number gainfully employed in industries other than manufactures (table 16).

**Table 16.- NUMBER GAINFULLY OCCUPIED IN MANCHESTER,
BY SELECTED OCCUPATIONAL GROUP
AND SEX, 1920 AND 1930^a**

Occupational group	1920			1930		
	Total	Men	Women	Total	Men	Women
Total	10,028	5,780	4,248	12,062	7,010	5,052
Trade	3,277	2,672	605	4,153	3,467	686
Public service	633	632	1	718	709	9
Professional service	1,573	662	911	2,078	838	1,240
Domestic and personal service	2,107	830	1,277	2,688	1,074	1,612
Clerical	2,438	984	1,454	2,427	922	1,505

^aData for: 1920 from *Fourteenth Census of the United States: 1920, "Population"* (U. S. Dept. Com., Bur. Census, 1923), vol. IV, p. 292; and 1930 from *Fifteenth Census of the United States: 1930, "Population"* (U. S. Dept. Com., Bur. Census, 1933), vol. IV, p. 985.

From these few salient facts the conclusion seems inescapable that Manchester's depression antedated 1929. The same facts serve also to give the setting for the outward migration of more than 10,000 persons during the decade of the "prosperous" twenties. The depression could have the effect only of accelerating the rate of Manchester's decline in employment opportunities both in manufactures and in the services and trade. The revival in business, aside from the closing of

Amoskeag, did not attain the level of 1929 measured in terms of employment either in Manchester or in the New England region.

Although this was the situation in general at the time of the shut-down, there were some offsetting considerations. Employment in cotton mills in the country as a whole improved during the latter part of 1935 when the Amoskeag shut-down occurred, and the improvement was sustained and extended throughout 1936. Since this certainly was the case for the entire industry, there is no reason to believe that the neighboring mills in Massachusetts and Maine did not share in the upswing (table 17).

**Table 17.- INDEXES OF MONTHLY EMPLOYMENT IN THE MANUFACTURE
OF COTTON AND WOOLEN AND WORSTED TEXTILES
IN THE UNITED STATES, 1935 AND 1936^a**

(1928-29=100)

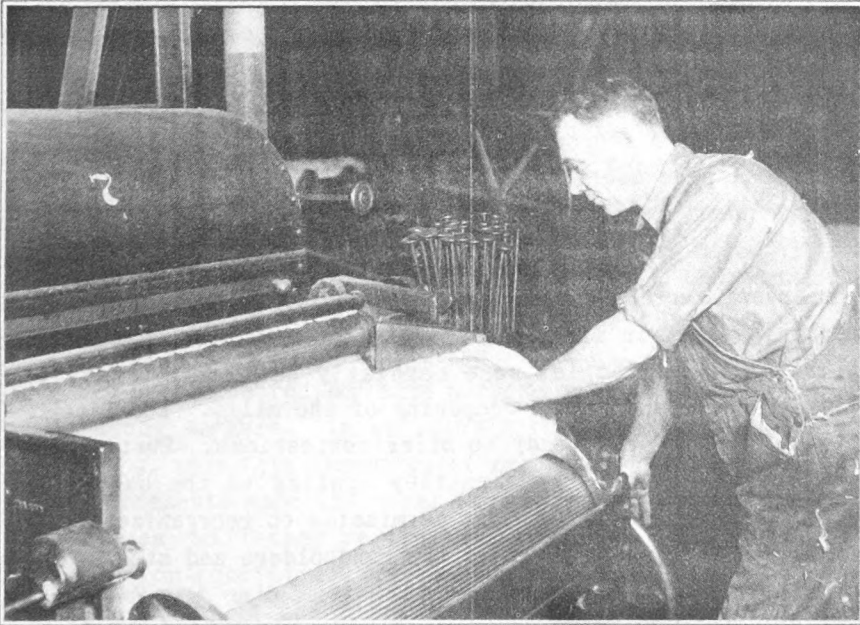
Month	Cotton textiles		Woollen and worsted textiles	
	1935	1936	1935	1936
January	96.3	91.7	91.8	97.8
February	96.7	91.4	93.9	97.4
March	95.5	91.6	92.4	93.0
April	91.9	90.4	98.0	87.8
May	88.0	90.4	91.1	86.7
June	85.1	90.7	96.7	87.0
July	82.3	93.4	94.4	88.0
August	81.6	96.3	97.3	89.9
September	84.8	97.8	95.9	85.9
October	88.0	97.6	98.5	78.5
November	90.6	99.5	103.1	83.8
December	92.2	101.4	102.4	91.6

^aAdapted from *Monthly Labor Review*, March 1935-March 1937.

In fact it is well known that many of the mills in the New England region during this period instituted a third shift, and the opinion was widely held that this was possible in large part because of the availability of skilled workers formerly employed by Amoskeag, particularly loom fixers. For the latter part of 1935, much the same situation obtained in the woollen and worsted industry, but in 1936 employment fell off. To what extent former Amoskeag operatives were able to take advantage of the temporary pick-up in textiles will be indicated at a later point.

The manufacture of boots and shoes ranked second in importance as an employer of Manchester's factory population. The expansion in this industry in and around Manchester that occurred in 1935-36 served as the only other mitigating industrial factor.³ The *Census of Manufactures* reported the monthly average employment in the boot and shoe industry of New Hampshire as 14,544 in 1929, 11,300 in 1933, and 15,035 in 1935, an all-time peak for the State. In the latter year, 4,817 of these shoe jobs, almost one-third, were in Manchester.⁴

The manufacture of cigars in Manchester had at one time employed over 1,200 persons, but at the time of the Amoskeag shut-down less than half this number was so employed, largely as the result of the mechanization of the process in 1931 when more than 600 men hand workers were replaced by some 200 girl



WPA - National Research Project (*Bine*)

FIGURE 7.- REMOVING A FULL LAP FROM A PICKER

This machine continues the cleaning and fluffing of the raw cotton, begun on other machines. Equipped with an "evener", it forms a lap (a layer of cotton fiber) of uniform weight. Another machine splits the lap into thick strands or "slivers."

³Much the largest part of New Hampshire's shoe industry is located in the tier of lower counties - Hillsborough (which contains Manchester), Rockingham, and Strafford.

⁴The figure for Manchester is taken from a letter to the National Research Project from the U. S. Bureau of the Census, June 18, 1937.

machine operators.⁵ Consequently, the possibilities of this industry absorbing Amoskeag workers were extremely limited.

Other industries in Manchester, such as woodworking factories and foundry and machine shops, involved small-scale operations which at best would experience only a moderate cyclical improvement in business. They certainly provided no wholesale opportunities for reemployment. Nor did agriculture offer any brighter prospects. The stony soil of the surrounding area did not favor the novice, and even poultry raising, the most generally pursued form of the agricultural industry in this section, required a considerable capital outlay. Expansion of employment opportunities in the services and trade was also not a hopeful possibility for reasons already set forth.

ATTITUDE OF AMOSKEAG WORKERS AFTER THE SHUT-DOWN

That the work had been running out for several months and that by September 1935 almost all the mills were closed was recognized by the workers but was viewed as a temporary condition. To find support for wishful thinking they appealed to historical precedent. After all, they argued, the company as such had been operating for 105 years; it was just unbelievable that it would go out of existence.

Moreover, current happenings could easily be utilized to bolster this faith in ultimate resurrection. State and municipal officials, for example, were earnestly seeking for ways and means of assisting in the reopening of the mills. Local trade-union officials were ready to offer concessions. Furthermore, the Amoskeag officials, when they applied to the bankruptcy court in December 1935, sought permission to reorganize and not permission to liquidate. Both the bondholders and stockholders formed protective committees, which from time to time in the next few months presented plans for reorganization. As related in chapter III, a plan agreed upon both by the committees and the company was filed with the court on March 9, 1936.

Of no little importance in keeping alive hope for the reopening of the mills was the result of a ballot taken on March 7, 1936, among former employees of the company whose names appeared on the 1935 pay rolls. The poll was conducted

⁵For a discussion of the adjustment made by the displaced workers see Daniel Creamer and Gladys V. Swackhamer, *Cigar Makers — After the Lay-off* (WPA National Research Project, Report No. L-1, Dec. 1937).

by the Citizens' Committee of the city of Manchester and the Manchester Textile Council on the following question: "Are you willing to work under adjusted wages and conditions which will permit permanent and peaceful operations on a competitive cost basis as determined by the management and representatives of the workers and approved for submission to the workers by the chairman of the New Hampshire Textile Commission and the chairman of the Citizens' Committee?"⁶ Of the 6,802 valid ballots, 54 percent were cast in the affirmative.

This display of willingness to make concessions, however, was not met by an equal willingness on the part of the bondholders. Accordingly, the court was constrained to order liquidation of the company's property. The court's order, it should be remembered, was not made until July 1936; that is, for almost a year after the shut-down the workers had some basis for hoping that Amoskeag would reopen the mills. There can be little doubt that this attitude affected the type of job hunt they made during the interval.

That such was the attitude, at least in the first few months after the shut-down, is clearly evident from the report of a survey of families living in company tenements. This canvass was undertaken by a representative of the company's personnel office in November and December of 1935. In that year the company tenements housed 931 of its employees, with all the mill departments and nationalities represented. Accordingly, they may be considered for this purpose a representative sample of Amoskeag workers. In an interim report under the date of December 9, 1935, the investigator recorded that "the occupants of the tenements made the usual inquiries as to when the mills will reopen; will they be closed all winter? Are the unions to blame for conditions? When they start, will it be longer hours, etc.?" In the final report of January 31, 1936, he estimated that "approximately 80% of those interviewed inquired as to when the mills would reopen."

While waiting for the mills to resume operations, many used their enforced leisure to make improvements in their tenements. Thus "it was noticed that a majority of the houses had been newly papered and painted. This has been done by the male

⁶From copy of ballot in the company's files.

members of the families at their own expense during the closing of the mills."⁷

On the other hand, at this early date "some of the families were indifferent as to what was in store for the future. My impression was [that] these persons are in debt and their hope of ever getting out of the red was forlorn. They appeared to take the attitude of letting things take their course and drift along - all ambition in these families appeared to be gone."⁸ This attitude was doubtless reinforced by the realization that employment opportunities in the Manchester area had been declining for some years.

CHARACTERISTICS OF AMOSKEAG WORKERS DISPLACED BY THE SHUT-DOWN

How well qualified were these former Amoskeag workers to compete for the limited number of jobs available in private industry in the area? Age, degree of skill, occupational habituation, amount of schooling, marital status, and family responsibilities are some of the factors that could condition the result. The operatives in the sample studied who were laid off from the Amoskeag pay roll in 1935 are a representative cross section of Amoskeag workers at the time of the shut-down. Accordingly, a description of their characteristics should bear on the question posed above.

The median age of the men in 1935 was 40.5 years. Almost 60 percent were under 45, and as many as 21 percent were over 55. Even under more auspicious conditions most of the latter group would have had extreme difficulty in finding employment. The women were younger. Their median age was 37 years; almost three-quarters of them were under 45 years of age and only 8 percent were 55 or over.

The fact that the Amoskeag workers were predominantly employed at semiskilled jobs at the time of the shut-down could scarcely be considered an advantage to them in the subsequent job hunt. About half of the men, for example, were semiskilled operatives, and the other half was about equally divided between those having skilled and unskilled jobs. The women were

⁷From a tenement survey report by a company investigator, November 18, 1935. "Tenement" is used in its more general sense to indicate dwellings which are rented or for rent.

⁸*Ibid.*, January 31, 1936.

concentrated in semiskilled occupations to an even greater degree, 85 percent being so classified; 11 percent were skilled operatives.⁹

How much occupational mobility the workers possessed would depend in part on the extent of their occupational habituation. Some idea of this may be had from data on the number of years at the longest occupation. For more than one-quarter of the operatives the longest occupational assignment did not exceed 2 years, and for an additional 31 percent this had lasted from $2\frac{1}{2}$ to 7 years. For about one-third the longest occupation extended over a minimum of 10 years. The degree of occupational habituation is rather directly related to age. Thus, to the disadvantages of age itself in the case of an older person seeking reemployment must be added the disabilities of an advanced degree of occupational habituation.¹⁰

The amount of formal schooling did not particularly enhance the occupational mobility of the Amoskeag workers. Upwards of 7 percent of both the men and the women had no schooling at all, and about one-quarter had completed from one to six grades. Only one-third had completed the eight grades of grammar school. Although one-quarter of the men had some high-school training, not quite 9 percent had graduated from high school. For the women the respective percentages were 14 and 4.5.¹¹

Geographical mobility, on the other hand, would be affected by other considerations, such as years in the community, family responsibilities, and home ownership. The measurement of the first factor would provide some idea of the extent of the locational inertia to be overcome. Almost half of the operatives reported that they had resided in Manchester for more than 20 years, and an additional one-third reported that they had lived in this community since birth.

Of the men and women reporting marital status, 70 percent of the former and 72 percent of the latter were married at the time of the shut-down. Some 26 percent of the married men reporting on dependency indicated that they had no dependents, whereas

⁹Figures in this and the preceding paragraph are based on interviews of workers separated from Amoskeag in 1935. The survey is described on page 79, and the findings are subsequently referred to as "NRP field-survey data." The schedule used was NRP Form 20 (see appendix H).

¹⁰Data are for Amoskeag workers separated in 1935, and are based on an NRP tabulation of a sample of company personnel records (Form 1030 - see appendix G).

¹¹Except where otherwise specified, data in this and the following two paragraphs are based on NRP field-survey data.



WPA - National Research Project (*Hine*)

FIGURE 8.- REPAIRING BREAK IN SLIVER ON A DRAWING FRAME

Four to eight strands of sliver are passed through the four pairs of drawing rollers of this machine (each roller revolving faster than the preceding one) to form one thinner and more even strand of sliver.

one-third had three or more. It was reported that one-third of the married women also had three or more dependents, but only 22 percent had no dependents.¹²

Home ownership, however, was not so widely prevalent that it could be regarded as an impediment to emigration for many of the workers. In a survey of 188 heads of households who had been employed at Amoskeag it was found that in less than one-third of the cases, 30.9 percent, was the house owned by the head of the household or by his wife in those instances where the husband was the head of the household.¹³

In view of the job possibilities and the workers' qualifications, what adjustments could they make? Adjustments may be grouped according to two broad classifications: those that depend entirely upon the private efforts of the individual and those that depend primarily upon organized community efforts. Under the latter category, the extent and character of new employment resulting from the activity of the Citizens' Committee

¹²There was undoubtedly some double counting, for it was not uncommon for both husband and wife to work at Amoskeag (see appendix E, p. 292). Figures for dependents are based on company personnel records (Form 1030).

¹³For additional information regarding the Manchester household survey see appendix E, p. 292.

in inducing new employers to locate in Manchester will be discussed in the next chapter. Under the former head, the unassisted efforts of the workers in finding private employment either in Manchester or elsewhere will be discussed in the present chapter. In lieu of finding employment, many workers found it necessary to secure public relief. This and other effects of the shut-down are also discussed in subsequent sections of this chapter.

PRIVATE EMPLOYMENT AFTER THE SHUT-DOWN

For this part of the study a sample of Amoskeag workers who had become unemployed through the shut-down were interviewed from 13 to 22 months after the loss of their Amoskeag employment.¹⁴ The names selected for interview were based on that part of the 10-percent sample of the personnel files¹⁵ in which the final separation occurred in 1935. This procedure results in a close approximation to a 10-percent sample of those employed at Amoskeag in 1935, and in most respects it is a representative cross section of Amoskeag operatives in the year of the closing of the mills.

This survey yielded 1,534 names, of whom 1,114 were interviewed. All but 46 of the schedules were usable, making a total sample of 1,068. This may be regarded as a 7-percent sample of Amoskeag workers in the last year of the company's operation. With respect to distribution by sex and marital status, by age, and by degree of skill, the composition of the 7-percent sample does not differ significantly from the composition of the 10-percent sample.

Of the 420 employees who were not interviewed, 51, or 3.3 percent of the 10-percent sample, were accounted for either by death or by removal to a community too far away to make interviews feasible, or because their employment at Amoskeag had been of less than a month's duration. Thus 369, or almost one-quarter of the original sample, could not be located. Since a diligent search was made for them within Manchester, it is probable that most of these had left the city. It is safe to conclude, therefore, that employment other than in Manchester after the shut-down is grossly understated by the

¹⁴All those separated from the Amoskeag pay roll in 1935 were considered as unemployed because of the shut-down.

¹⁵For description of company personnel records see appendix G.

sample of 1,068 persons interviewed. To evaluate the role of migration after the shut-down it will be necessary to make use of other data.

The interviews were begun about the middle of October 1936 and were terminated at the end of January 1937. The employment status of the workers is measured as of October 15, 1936.¹⁶ It was not until December of this year that the Citizens' Committee arranged for the first new company to locate in Manchester. Some of the workers who were reported as unemployed in October may have secured jobs in the new industries at a later date.

Interval Between the Shut-down and the First Job

The difficulties involved in making a satisfactory economic adjustment within 22 months after the shut-down are apparent from an examination of the interval that elapsed between the shut-down and the next job in private industry, including self-employment. Most revelatory of this is the fact that three-fifths of the men and four-fifths of the women had no private

Table 18.- PERCENTAGE DISTRIBUTION OF THOSE WHO WERE REEMPLOYED,^a BY INTERVAL BETWEEN LAST AMOSKEAG JOB AND NEXT JOB AND BY SEX^b

Duration of interval in months	Men	Women
Total		
Number	213	97
Percent	100.0	100.0
0	24.5	20.5
1- 3	17.4	9.4
4- 6	16.4	16.5
7- 9	13.1	9.3
10-12	14.1	18.5
13-15	10.8	19.6
16-18	2.8	6.2
19-21	0.9	0

^aBy October 15, 1936.

^bNRP field-survey data.

¹⁶Although the occupational history of each worker was traced back to 1926, primary interest attaches to the period following the Amoskeag shut-down. Accordingly, material relating to the preceding time period will be utilized only when it contributes to an understanding of what happened after the closing of the mills. The schedule used for this field survey (Form 20) and an explanation of terms is presented in appendix H.

employment within this period which may have been as long as 22 months. Of the 40 percent of the men in this group who found private employment, one-quarter were reemployed within a month of the shut-down and an additional one-third within 6 months (table 18). As many as 14.5 percent were unemployed at least a year before employment was obtained.

The women had even greater difficulties in finding work. Only 20 percent of the women in the sample ever secured employment, and only one-fifth of these did so within a month. An additional 25 percent of those who finally found work were reabsorbed within the following 6 months, and as many as one-quarter became employed within the 10 months immediately preceding the date of interview.

Employment Status in October 1936

These data, however, overstate the extent of reemployment that had taken place as of the interview date since by that time some who had been reemployed were again without employment. Their employment status as of October 15, 1936, is shown in table 19. From this table may be seen some of the factors that conditioned the competition for the limited number of jobs.

In general, it appears that a larger percentage of the men than of the women had private employment on the date of interview; that single persons had more employment than married persons, especially among the women; and that the younger workers were favored over the older workers. A closer inspection, however, of the relationship of marital status to current employment status of the men indicates that the true relationship is concealed by totals. For example, if the single and married men are compared by age groups, it is found that in each age group a larger percentage of the married men compared with the single men was privately employed. This fact is lost in the comparison of totals because age also influenced reemployment and the unmarried men constituted a considerably younger group than did the married men.

Reasons for the difference between married and unmarried men suggest themselves. On the whole, the former would have greater financial responsibilities which probably would lead them to seek more earnestly for employment than would single men, and this would create a greater willingness to accept

Table 19.- PERCENTAGE DISTRIBUTION OF WORKERS, BY AGE, SEX,
AND MARITAL AND EMPLOYMENT STATUS
AS OF OCTOBER 15, 1936^a

Marital and employment status	Total persons	Age in years					
		20 or under	25-34	35-44	45-54	55 or over	
Single, total Number Percent Employed Unemployed seeking work Unemployed not seeking work Married, total Number Percent Employed Unemployed seeking work Unemployed not seeking work	Men						
	173	91	45	12	12	13	
	100.0	100.0	100.0	100.0	100.0	100.0	
	35.3	45.1	35.6	16.7	16.7	0	
	64.7	54.9	64.4	83.3	83.3	100.0	
	0	0	0	0	0	0	
	Women						
	167	76	43	26	9	13	
	100.0	100.0	100.0	100.0	100.0	100.0	
	21.6	28.9	14.0	15.4	22.2	15.4	
	73.1	65.8	81.4	80.8	66.7	76.9	
	5.3	5.3	4.6	3.8	11.1	7.7	
	Married, total Number Percent Employed Unemployed seeking work Unemployed not seeking work	Men					
376		14	62	102	95	103	
100.0		100.0	100.0	100.0	100.0	100.0	
30.6		57.1	48.4	38.2	25.3	13.6	
66.8		42.9	51.6	60.8	72.6	79.6	
2.6	0	0	1.0	2.1	6.8		
Women							
352	17	77	149	84	25		
100.0	100.0	100.0	100.0	100.0	100.0		
9.7	11.8	20.8	7.4	6.0	0		
67.6	64.7	57.1	72.5	65.5	80.0		
22.7	23.5	22.1	20.1	28.5	20.0		

^aNRP field-survey data.



WPA - National Research Project (*Hine*)

FIGURE 9.- WORKER "PIECING UP" ON A SLUBBER

The slubber transforms the sliver into roving by stretching it, giving it a slight twist, and winding it on a bobbin.

stopgap or dead-end employment that a single person might regard as inferior and unacceptable. In addition, employers, realizing the difference in financial responsibilities, often favored married men, other things being equal.

That the opposite relationship prevailed among married and unmarried women also seems reasonable. The married women, it has been shown, were typically part of the labor reserve and when the main source of supplementary employment was eliminated either did not seek diligently for employment elsewhere or

SHUT-DOWN OF AMOSKEAG

Table 20.- PERCENTAGE DISTRIBUTION OF WORKERS, BY DEGREE OF SKILL OF LONGEST AMOSKEAG JOB, 1980-84, SEX, AND MARITAL AND EMPLOYMENT STATUS AS OF OCTOBER 15, 1986^a

Marital and employment status	Skilled	Semi-skilled	Unskilled
Men			
Single, total			
Number	18	85	70
Percent	100.0	100.0	100.0
Employed	55.6	29.4	37.1
Unemployed seeking work	44.4	70.8	62.9
Unemployed not seeking work	0	0	0
Married, total			
Number	124	199	53
Percent	100.0	100.0	100.0
Employed	37.1	26.6	30.2
Unemployed seeking work	61.3	70.4	66.0
Unemployed not seeking work	1.6	3.0	3.8
Women			
Single, total			
Number	19	146	2
Percent	100.0	100.0	100.0
Employed	31.6	20.5	0
Unemployed seeking work	63.2	74.0	0
Unemployed not seeking work	5.2	5.5	100.0
Married, total			
Number	45	305	2
Percent	100.0	100.0	100.0
Employed	11.1	9.2	0
Unemployed seeking work	68.9	67.5	100.0
Unemployed not seeking work	20.0	23.3	0

^aNRP field-survey data. For classification of occupations by degree of skill, see appendix G.

**Table 21.- PERCENTAGE DISTRIBUTION OF WORKERS,
BY INDUSTRIAL SECTION, SEX, AND MARITAL
AND EMPLOYMENT STATUS AS OF OCTOBER 15, 1936^a**

Marital and employment status	Cotton section	Worsted section	General section ^b
Men			
Single, total			
Number	134	24	15
Percent	100.0	100.0	100.0
Employed	35.8	25.0	46.7
Unemployed seeking work	64.2	75.0	53.3
Unemployed not seeking work	0	0	0
Married, total			
Number	239	90	47
Percent	100.0	100.0	100.0
Employed	28.0	30.0	44.7
Unemployed seeking work	68.6	68.9	53.2
Unemployed not seeking work	3.4	1.1	2.1
Women			
Single, total			
Number	88	77	2
Percent	100.0	100.0	100.0
Employed	25.0	16.9	0
Unemployed seeking work	70.5	77.9	100.0
Unemployed not seeking work	4.5	5.2	0
Married, total			
Number	221	131	0
Percent	100.0	100.0	-
Employed	10.4	7.6	-
Unemployed seeking work	68.8	66.4	-
Unemployed not seeking work	20.8	26.0	-

^a NRP field-survey data.

^b Includes mechanical, maintenance, and central office (clerical) staffs.

removed themselves entirely from the labor market. Evidence of the latter is the fact that from one-fifth to one-fourth of the married women in each age group were unemployed and not seeking work, while among all the other categories of workers the number with this status was negligible. More will be made of this point later in the discussion.

The degree of skill and the industrial section in which the worker had been employed (cotton, worsted, or general) seem to have had some effect on reemployment. The data shown in tables 20 and 21 are based on the occupational group and industry of the individual's longest job at Amoskeag between 1930 and 1934. On this basis, among both single and married men relatively more skilled workers found jobs than did the semi-skilled and unskilled. A larger percentage of the unskilled, however, as compared with the semiskilled persons, was currently employed.¹⁷ This suggests that the unskilled probably were both more willing to accept and were better suited for laboring jobs than were the semiskilled. Among the women also, the skilled workers were better able to find employment than were the semiskilled, especially the single women; the percentage difference among the married women is very small and probably is not meaningful.¹⁸

Among the men, regardless of marital status, those whose most recent training had been in the general section of the plant (including skilled mechanics and laborers as well as clerical workers) fared best in the job hunt. The single men and women from the cotton section had relatively more success in being reemployed than did those from the worsted section. Among the married persons there seems to have been no appreciable difference in this respect.

Duration of Employment Status in October 1936

Although only 23 percent of all the workers in the sample were employed in October 1936, even this status had not been long enjoyed by many of the 23 percent, as might be inferred from the distribution of the interval between last Amoskeag job and next job. The duration of the status of October 1936 is shown in table 22. Of all the men and the single women who

¹⁷It should be mentioned that this difference among the married men is not statistically significant.

¹⁸The number of unskilled women was too small for tabulation.

were employed in October 1936, for example, only about one-quarter had been employed during the entire interval between loss of Amoskeag employment and the interview date, a maximum of 22 months. Of the married women with jobs in October 1936, only about one-tenth had had employment for the entire interval. An additional 10 percent or so of each group, except the married women, had been employed at least a year. On the other

**Table 22.- PERCENTAGE DISTRIBUTION OF WORKERS,
BY MARITAL STATUS AND DURATION OF EMPLOYMENT STATUS
AS OF OCTOBER 15, 1936, AND SEX^a**

Duration of employment status in months	Single			Married		
	Em- ployed	Unem- ployed seeking work	Unem- ployed not seeking work	Em- ployed	Unem- ployed seeking work	Unem- ployed not seeking work
Men						
Total						
Number	61	112	0	115	251	10
Percent	100.0	100.0	-	100.0	100.0	100.0
1- 3	19.7	6.3	-	27.0	4.4	0
4- 6	18.0	5.4	-	16.5	2.8	0
7- 9	21.3	1.8	-	7.8	0.4	0
10-12	6.6	0.9	-	8.7	1.2	10.0
13-15	8.2	0	-	8.7	0.4	0
16-18	1.6	0	-	3.5	0	0
Entire interval ^b	24.6	85.6	-	27.8	90.8	90.0
Women						
Total						
Number	36	122	9	34	238	80
Percent	100.0	100.0	100.0	100.0	100.0	100.0
1- 3	27.8	5.8	0	44.1	2.1	1.3
4- 6	22.2	2.5	0	23.5	1.7	0
7- 9	2.8	1.6	0	11.8	0.4	0
10-12	5.5	0.8	0	5.9	0.8	1.2
13-15	11.1	0.8	11.1	0	1.7	0
16-18	2.8	0	0	2.9	0	0
Entire interval ^b	27.8	88.5	88.9	11.8	93.3	97.5

^aNRP field-survey data.

^bEntire period (13-22 months) between loss of last Amoskeag job and October 15, 1936.

hand, from one-third to two-thirds of the currently employed had been so engaged for 6 months or less.

The status of those who were unemployed and seeking work in October 1936 was of even longer standing. Between 86 and 93 percent of these persons had been unemployed and seeking work during the entire interval since the loss of their Amoskeag jobs. Even larger percentages of those who were not seeking work had had this status during the entire interval since the shut-down; four-fifths of this group, however, were married women.

Distribution of Total Time After the Shut-down

The extent to which the former Amoskeag workers were economically stranded by the shut-down may also be expressed by a distribution of the total man-months in the sample which elapsed between the last Amoskeag job and October 1936. This distribution is presented in table 23 and figure 10. Of the total man-months in the sample, 15 percent were months of employment, including self-employment which was of negligible amount; about two-thirds of the months were months of unemployment seeking work, excluding the 10 percent of the months represented by emergency Government employment; and the remaining 10 percent were months of time not seeking work. The differences by sex and marital status are only those which would be expected from the preceding discussion. That is, the men had more employment than the women, and the single women had more employment than the married women. A large fraction of the time not seeking work was due to the withdrawal of married women from the labor market.

Character of Reemployment

It cannot be contended that the quality of the employment secured in any way compensated for the reduced quantity. In this sample, 298 workers had 319 jobs between the shut-down and the interview date. Aside from the fact that 73 of the jobs, almost one-quarter, had been terminated by October 1936, as many as 15 percent involved only part-time employment.

Only one-quarter of the jobs were in the textile industry, and of these much the largest proportion was in the cotton branch (table 24). Some 13 percent found employment in the

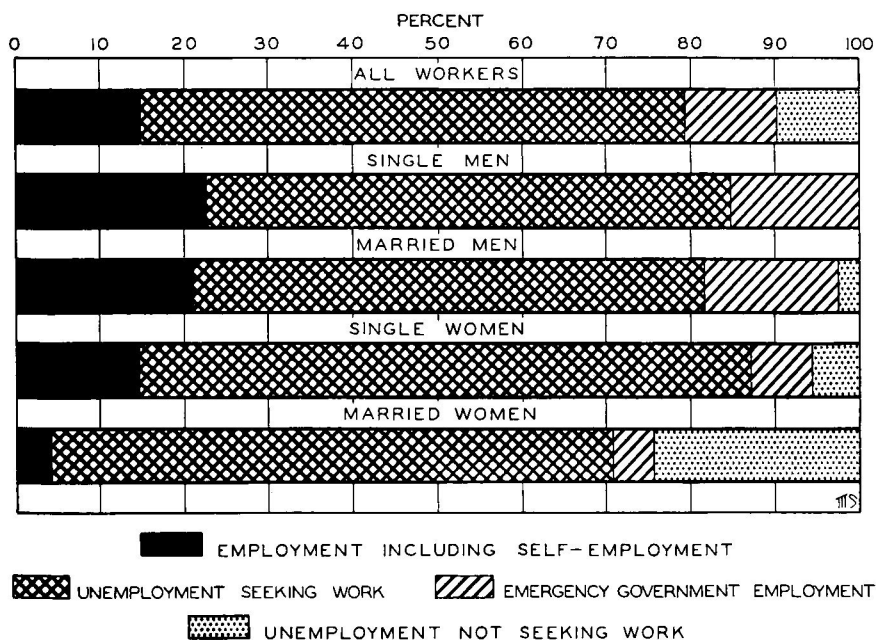
Table 28.- PERCENTAGE DISTRIBUTION OF TOTAL MAN-MONTHS ELAPSED BETWEEN LAST AMOSKEAG JOB AND OCTOBER 15, 1936, BY EMPLOYMENT STATUS, SEX, AND MARITAL STATUS^a

Sex and marital status	Total man-months elapsed between last Amoskeag job and Oct. 15, 1936	Percentage distribution of total elapsed time			
		Employed	Unemployed seeking work	Emergency Government employment ^b	Unemployed not seeking work
Total	16,445	14.8	64.6	10.8	9.8
Men, total	8,488	21.5	61.1	15.6	1.8
Single	2,721	22.7	62.2	15.1	0
Married	5,767	21.0	60.6	15.8	2.6
Women, total	7,957	7.6	68.4	5.7	18.3
Single	2,521	14.7	72.4	7.3	5.6
Married	5,436	4.3	66.5	4.9	24.3

^aNRP field-survey data.

^bWPA and other emergency Works Program jobs.

Figure 10.- PERCENTAGE DISTRIBUTION OF TOTAL MAN-MONTHS ELAPSED BETWEEN LAST AMOSKEAG JOB AND OCTOBER 15, 1936, BY EMPLOYMENT STATUS, SEX, AND MARITAL STATUS



Based on table 23

WPA - National Research Project

L-53

shoe industry, and 7 percent were employed in other manufacturing enterprises. Over half (53.9 percent) were nonmanufacturing jobs, mainly the poorer-paying positions in domestic and personal service and in trade, with a small scattering of jobs in agriculture and building and construction. There were 24 miscellaneous jobs, most of them laboring jobs in the Amoskeag mill yard for maintenance and repair work after the flood of March 1936.

**Table 24.- INDUSTRIAL DISTRIBUTION OF EMPLOYMENT
AFTER THE SHUT-DOWN^a**

Industry	Number of jobs	Percent of total
Total	319	100.0
Textile manufactures	81	25.4
Cotton	48	15.0
Woolen and worsted	20	6.3
Other textiles	13	4.1
Boot and shoe	42	13.2
Other manufactures	24	7.5
Nonmanufactures	172	53.9
Transportation, communication, and public utility	15	4.7
Trade	53	16.6
Public service	25	7.8
Domestic and personal service	59	18.5
Building and construction	13	4.1
Agriculture	6	1.9
Other	1	0.3

^aNRP field-survey data. Data include all jobs obtained at any time between loss of last Amoskeag job and October 15, 1936.

Even for those who had or had had jobs the employment could be considered inferior from still another point of view, namely, the degree of skill involved.¹⁹ Whereas one-quarter of these workers had had skilled employment at Amoskeag, only 19 percent of the jobs obtained after the shut-down were skilled. The respective percentages for the semiskilled were 55.8 and 39.2.

¹⁹These measurements are quite rough since many arbitrary decisions must be made in classifying a heterogeneous array of jobs, especially in view of the very brief description of the task that was available.

This could only mean an increase in the number of unskilled jobs in the 22 months immediately following the shut-down. There were also more in clerical positions, which in this instance may be regarded as an improvement of status since the additions came from those with semiskilled or unskilled jobs at Amoskeag.

Location of Jobs

This reemployment level was attained only by seeking and accepting employment outside of Manchester.²⁰ Almost 45 percent of the total of 319 jobs were located in communities other than Manchester. Only two jobs were outside of the New England region, with one-fifth of the employment in New Hampshire outside of Manchester; more than one-fifth were in the remaining five States of New England, but chiefly in Massachusetts. Although only 4 of the 81 textile jobs were in Manchester, all but 5 of the 42 jobs in the shoe industry were obtained locally; the latter was also true for nearly three-quarters of the great variety of jobs other than in manufacture.

From the available data, age does not seem to have been the controlling factor in seeking or obtaining outside employment since from 50 to 60 percent of the persons in each of five age groups were reemployed in Manchester. Although relatively more married persons (44.7 percent) as compared with single persons (39.5 percent) were employed outside of Manchester, this probably was not a significant difference, and the same probably applies to the fact that the percentage of women having outside employment was somewhat higher than the percentage of men.

The Regularly Employed and the Labor Reserve After the Shut-down

The vicissitudes experienced in this period after the shut-down by those who had been regularly employed at Amoskeag and by those intermittently employed are of special interest. In the 10-percent sample of the personnel files, 741 workers were in these two groups (see appendix E). Of this number, occupational histories were secured from 548. With respect to sex, age, and marital status, this smaller sample is representative

²⁰The point made at the outset of the discussion - that the extent of migration is understated in the sample - should be recalled.

Table 25.- PERCENTAGE DISTRIBUTION OF A SPECIAL SAMPLE OF WORKERS, BY EMPLOYMENT STATUS AS OF OCTOBER 15, 1936, EMPLOYMENT STRATUM AT AMOSKEAG, SEX, AND MARITAL STATUS^a

Employment stratum, ^b sex, and marital status	Total persons	Percentage distribution by employment status as of October 15, 1936		
		Employed	Unemployed seeking work	Unemployed not seeking work
Regularly employed				
Men	214	20.1	77.1	2.8
Women	193	11.4	78.2	10.4
Single	74	17.6	79.7	2.7
Married	119	7.6	77.3	15.1
Labor reserve				
Men	46	32.6	63.0	4.4
Women	95	5.3	66.3	28.4

^aNRP field-survey data.

^bThe regularly employed represent those who had at least 39 weeks of work at Amoskeag in 4 of the 6 years 1928 and 1930-34; the labor reserve represents those who had less than 39 weeks of work at Amoskeag in 4 of the 6 years. See appendix E, "Composition of the Labor Reserve" and table E-13.

of the larger one. The employment status of the persons in these two groups of the subsample is presented in table 25. It invites comparison with the break-down given in table 19.

Of those who had been regularly employed at Amoskeag, one-fifth of the men were employed in October 1936, whereas in the entire sample of men workers interviewed, one-third enjoyed this status. Among the women of this group the same differences resulting from their marital status existed as in the entire sample of women. The relative numbers employed were on about the same level, respectively, as in the larger sample of women. It is significant that as many as 15 percent of the married women among the regularly employed withdrew from the labor market upon losing their Amoskeag employment.

The men in the labor reserve had relatively more employment after Amoskeag than those belonging to the regularly employed group. The percentage is as high as for the total sample of men. Could this be explained by the fact that the men in the

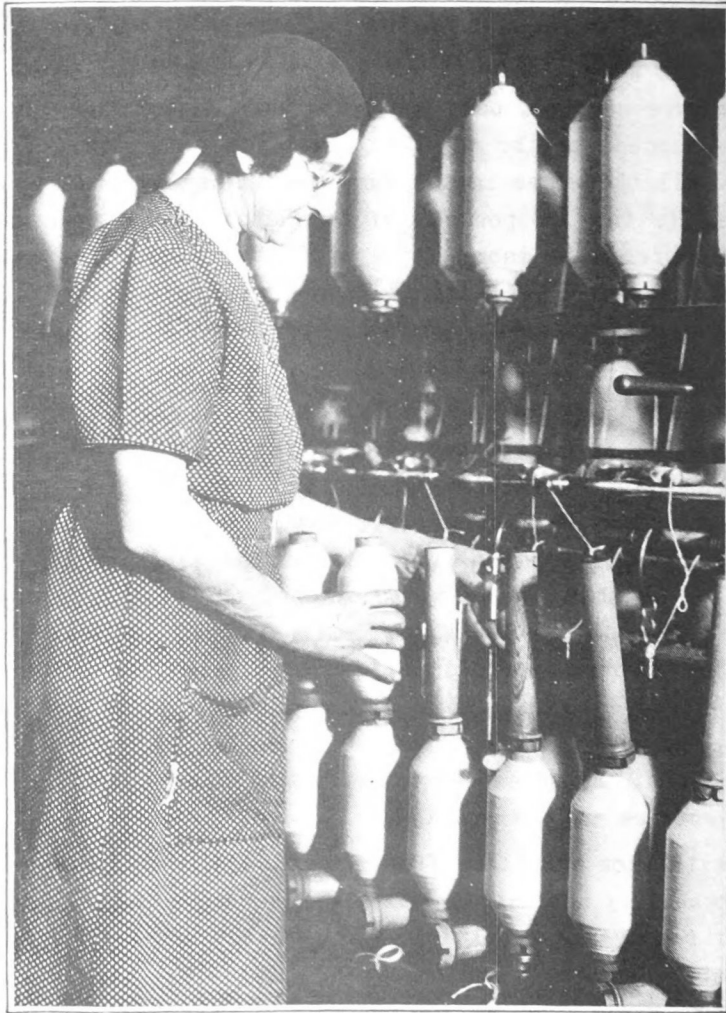
labor reserve had more experience in looking for jobs than those who had been always employed by Amoskeag?

Among the women in the labor reserve, a very large fraction of whom were married, only 5 percent were employed as compared with 11 percent of the regularly employed women and 13.5 percent of all the women in the sample. A more noteworthy fact, however, is that 28 percent of the women in the reserve had withdrawn from the labor market, all but one of them at the time of the shut-down, compared with 15 percent of the married women in the regularly employed group and with 23 percent of all the married women in the sample.

This evidence would appear to have some bearing on the general problem of unemployment estimates. It has been widely observed that the unemployment of one member of a household frequently forces another from the same household to seek employment. Consequently, the number seeking work may well exceed the number who lost employment; that is, unemployment may create a condition of forced entries into the labor market. What has not been generally appreciated, however, is the fact that there are certain situations in which those who become unemployed withdraw from the labor market. If this is the case, it would be necessary to estimate the net balance between forced entries and withdrawals.

The situation resulting from the failure of Amoskeag was in all probability not unique. When married women, who constitute a labor reserve to supplement the earnings of the head of the household, lose their employment, a substantial number of them very likely withdraw from the labor market. The extent of withdrawals will depend upon the existence in the same community of other industries employing women. Accordingly, any relative estimates would vary with the industrial composition of the geographic unit under consideration.

When withdrawals from the labor market of this type occur, it is quite probable that the same set of circumstances operate to eliminate or greatly to minimize the number of forced entries into the labor market, unless one is concerned with a very large community with highly diversified employment opportunities for women. The forced entries in the main are married women who had once been employed. They are also the ones who withdraw from the labor market. At any rate, in Manchester in



WPA - National Research Project (*Hine*)

FIGURE 11.- TENDING A FLY FRAME (DOFFING)

This machine, like the intermediate, speeder, and jack frames, continues the process of drawing out the roving and making it more compact.

the fall of 1936, a year after the Amoskeag shut-down, there was little evidence of forced entrance to the labor market as the result of the shut-down. In a supplementary study of 1,000 households, the members of which were interviewed for employment status in October 1936, there were 1,779 persons who were either employed or seeking work. Of these persons, 104 reported that they had never been previously employed and at the time were unemployed and seeking work. That is, they were

new entrants into the labor market. None of the 104 were married, and three-quarters were between the ages of 15 and 19; all but 2 of the remainder were between the ages of 20 and 24. With the exception of one daughter aged 28, all were "normal" entrants, persons who had reached the working age.

EMIGRATION AFTER THE SHUT-DOWN

Unfortunately, it is not possible to determine from the available data what percentage of the Amoskeag workers left Manchester. Use of other data can, however, extend somewhat our knowledge of this form of meeting the unemployment problem created by the shut-down. Use is made of the emigrants recorded in the files of the Board of Registrars of Voters.²¹ These persons are the ones who changed their legal residence; that is, they were probably permanent emigrants. The names of such persons were available only for 1935 and the first 3 months of 1936.

An analysis of the workers who emigrated, however, must be supplemented by an analysis of those Amoskeag workers who were employed in textile mills outside of Manchester but did not change their legal residence or move their families. They either commuted daily from Manchester or returned to Manchester at moderately short intervals. Employment of this sort was available in the latter part of 1935, all of 1936, and the early part of 1937. These employment opportunities were present as a result of the fact that mills in the surrounding territory were running third shifts to take advantage of the improved outlook in the cotton-textile business. In many of these communities the local labor supply, especially for certain skilled occupations, was inadequate to staff a third shift, and for this reason their labor reserve was extended to Manchester. These workers will be referred to as commuters to distinguish them from the emigrants.

The names of the commuters were obtained in part from lists prepared by the out-of-town mills for the use of a new mill in Manchester. Other names were secured from records in the local office of the United Textile Workers of America. Still others were supplied by the Manchester office of the United States

²¹See appendix E for discussion of these records.

Employment Service. While there is reason to believe that the coverage of commuters has been quite extensive for that period, it has by no means achieved completeness.

Just as the 9-month strike in 1922 added greatly to the outward migration, so the closing of the Amoskeag mills in 1935 helped swell the volume of emigration from Manchester, which had already reached considerable proportions. Thus in 1935 the volume of emigration as measured by voters' records was 522; the previous peak had been 457 in 1929 (table E-22). Emigration in 1935 exceeded by 53 percent the annual average number of emigrants in the preceding 5 years. The comparable increase for former Amoskeag workers was 93 percent.

An examination of the characteristics of all the gainfully occupied emigrants of 1935 in the Board of Registrars sample showed no significant difference from the emigrants of the preceding decade and a half, with two exceptions. One difference was that while in former years those from manufacturing industries had constituted about one-third of the total, in 1935 they comprised only one-quarter despite the more rapid increase in Amoskeag emigrants than in the total. The other difference consisted in the fact that the women emigrants in 1935 were somewhat older than those in previous years. There were no very significant differences in the two periods in the characteristics of our subsample of former Amoskeag workers. What is of more interest are the differences between the Amoskeag emigrants, 1920-35, and the Amoskeag commuters.

In comparing these two groups it would be well to remember that it is unlikely that all the emigrants left Manchester for employment elsewhere; probably many emigrated in the hope of finding employment. On the other hand, we know that the commuters had jobs, however precarious the tenure may have been. It is this fact that probably explains the difference in the age distributions; that is, the commuters were considerably younger. Among men commuters, 69 percent were under 45 years of age, but among the men emigrants, only 56 percent were in this age group. The same difference was evident among the women, the percentages being 89 and 77, respectively, for commuters and emigrants.

Despite the fact that the commuters were younger than the emigrants, a higher percentage of them were married. This was

true for both the men and the women. Among the men commuters, 77 percent were married compared with 68 percent of the male emigrants and 67 percent of Amoskeag's men employees in 1935. This is in accord with the results obtained from the work-history interviews; that is, the married men got relatively more jobs than the single men. Among the women commuters, 63 percent were married compared with 54 percent of the women emigrants and 71 percent of the women workers at Amoskeag in its last year. Apparently the married women operatives could more easily manage out-of-town employment within commuting distance than they could manage emigration. The former situation, obviously, was tenable when the husband was employed, but it is improbable that a woman would emigrate under the same circumstances. Nevertheless, it should be noted that even in the case of commuters the married women were somewhat underrepresented. This would suggest that even in moderately favorable circumstances a disproportionate number of supplementary workers withdrew from the labor market. These considerations also explain why the ratio of women to men was somewhat higher among the commuters than among the emigrants - 41 percent as compared with 33 percent.

With respect to the degree of skill of the former Amoskeag workers, as judged by their last job at Amoskeag, there was only one important difference between the emigrants and the commuters. Among the latter there were no office workers. The overrepresentation of skilled workers among both the men and women was about the same in the two groups.

Since the commuters, unlike those emigrating prior to 1935, did not separate from Amoskeag voluntarily, it is but natural that their length of attachment to the company should have been somewhat longer than for the emigrants. For example, two-thirds of the men commuters and three-fifths of the women commuters had been attached to Amoskeag over a period of at least 10 years. Only half the emigrants, both among the men and women, had had attachments of this duration.

It is to be expected also that, if our term "commuters" is properly applied, their moves would have been within a smaller radius of Manchester than the moves made by the emigrants. Accordingly, about half the commuters had employment in Hillsborough County other than Manchester, more specifically in the city of Nashua, some 18 miles down the Merrimack Valley,

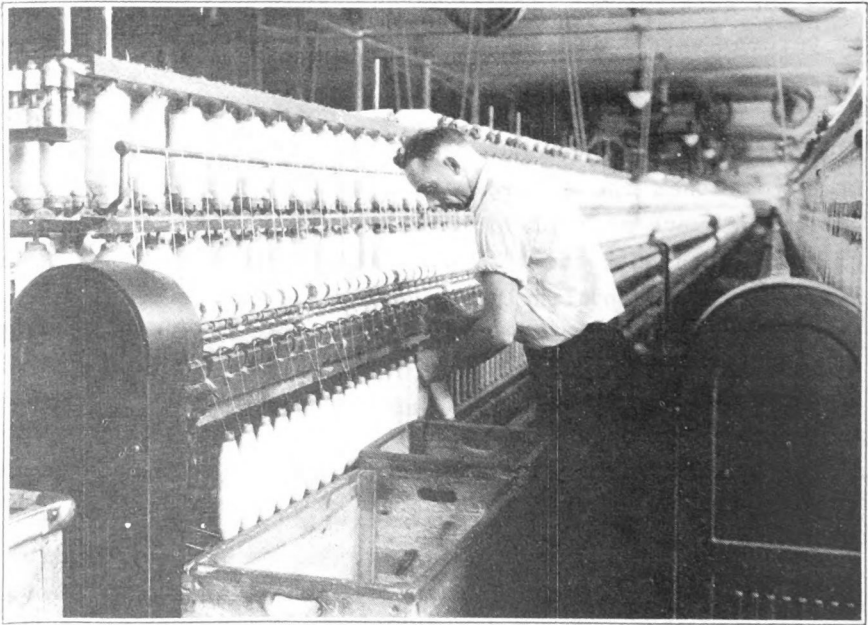
WPA - National Research Project (*Hine*)

FIGURE 12.- RING SPINNER

Two strands of slightly twisted roving are transformed into one strand of tightly spun yarn by this machine which also winds the yarn on bobbins.

compared with 10 percent of the emigrants who moved to communities within the county. Another 35 percent of the commuters went to Massachusetts, mainly to Lowell and Lawrence, still farther down the Merrimack. The fact that the entire valley constituted the labor reserve for the textile mills located on the banks of the river was not a novel situation; this had been the case for many years. The only new feature in this situation after the Amoskeag shut-down was the increased numerical importance of Manchester's operatives in this labor reserve. Nearly 10 percent of the commuters found some employment in the textile mills of Limerick and Biddeford, Maine. Two commuters located temporary jobs outside of New England.

In view of the fact that most of these jobs involved only daily commuting, it is not surprising that the French Canadians and Poles were more than duly represented among the commuters. This was the reverse of the situation that obtained among the emigrants and tends to support the explanation advanced in appendix E; namely, that the degree of ethnic cohesiveness or clannishness of a group bears an inverse relationship to its degree of geographic mobility.

Enough evidence has been presented to show the dislocations created by the shut-down. Only 30 percent of the men and 20 percent of the women managed to secure any private employment in the 22 months that elapsed between the loss of Amoskeag employment and the date of interview. The short duration of many of the jobs held at the time of interview is suggested by the fact that private employment accounted for less than 15 percent of the total time between the last Amoskeag job and the interview date.

Although emigration and commuting to jobs outside of Manchester occurred to a greater extent after the shut-down of Amoskeag than in the years of the general depression, the exact volume of this sort of adjustment is not known. That it did not provide a solution on a wholesale scale to Manchester's unemployment problem is plainly indicated by the number of persons registered for work in the Manchester office of the New Hampshire State Employment Service.

In April 1935, when the final liquidation was begun, the active file of this office contained 4,726 names (table 26). That is, this number of persons made inquiry for employment at the office at least once in 30 days. Although the mills were virtually closed down in September of that year, it was not until March 1936 that the total registration reached 12,195,

Table 26.- ACTIVE FILE OF MANCHESTER WORKERS AT NEW HAMPSHIRE STATE EMPLOYMENT SERVICE, 1935-38^a

Month	1935	1936	1937	1938
January	n.a.	10,665	10,451	11,121
February	4,560	11,805	9,533	13,375
March	n.a.	12,195	7,234	11,751
April	4,726	12,181	7,621	12,447
May	4,947	12,075	7,663	10,221
June	5,434	9,002	6,465	9,065
July	6,177	9,544	6,745	10,482
August	6,718	9,876	7,497	8,926
September	6,897	10,312	6,955	10,447
October	7,227	10,774	6,058	10,365
November	7,585	11,038	6,465	11,686
December	8,454	11,005	7,970	12,978
Average	6,272	10,873	7,555	11,072

^aActive file of registrants not placed.

n.a. Data not available.

nearly a threefold increase over the registration of the previous April. At the time of interviewing, October 1936, there were still almost 11,000 persons actively seeking employment, or nearly one-third of the number reported gainfully occupied in the 1930 census. Moreover, placements in private employment from April 1935 through October 1936 numbered only 544, about 6 percent of the monthly average number in the active file.

EFFECT OF THE SHUT-DOWN ON RELIEF ROLLS

Since the opportunities for emigration and reemployment in Manchester or in nearby textile centers proved to be decidedly limited and since the low earnings in previous years precluded the accumulation of any considerable savings, one would naturally expect that it was public relief in one form or another that prevented widespread destitution among the textile workers of Manchester. A relief organization created to care for those without employment in the general depression was obliged to assume the burden of those rendered unemployed by the closing of the Amoskeag mills. If the shut-down had occurred 4 or 5 years earlier, there would have been no adequate public facilities for handling the major relief problem that would have been created. The break with tradition in this respect was as sharp in Manchester as elsewhere.

Not that Manchester had made no provision for relieving destitution. Both the city and county governments maintained departments of charities. As the name implies, these offices were to extend "pauper aid", and under the circumstances usually only the ne'er-do-wells would face the disgrace of being "on the town."

However, there were occasions when destitution resulting from unemployment was not regarded as a matter of individual backsliding or moral turpitude and justified the granting of special assistance. Thus the New Hampshire Commissioner of Labor in his report issued in 1894 recorded:

In the early fall of 1893 several thousand people were thrown out of employment by the temporary closing of the Amoskeag mills of Manchester, but no serious distress was experienced from the fact that a large number of the employes were Canadians, and they embraced the opportunity to visit their homes across our northern borders during their enforced vacation, where many of them remained permanently,

and others until such time as their services were again required. . . .

During the winter a loan of \$25,000 was authorized to provide work for the unemployed in Manchester through the street department, and charitable organizations did considerable work in furnishing pecuniary assistance and nourishing food at a nominal price to the unfortunate poor for a time²²

Except in such spectacular situations, however, the tradition of paupers' aid remained intact. Despite this stigma, an ever-increasing number was reduced to seek this aid with the worsening of conditions at Amoskeag during the twenties. In 1929 the monthly average number of cases granted general relief (poor relief) by Manchester was 805, or 4.3 percent of all of Manchester's families as reported in the 1930 census; expenditures on this score amounted to \$159,444. With the onset of the great depression, the unemployment situation in Manchester naturally was accentuated and reflected in the general relief load. Thus in 1930 more than \$188,000 was distributed to 1,171 cases, that is, an increase of 45 percent in the case load with an 18-percent rise in expenditures. In each of the two following years the percentage rises in the case load over the previous year were 38 and 50, respectively, while the percentage increases in expenditures were 24 and 53, respectively. The effect of the depression may be expressed in another way by relating the relief situation in 1932 to that which obtained in 1929. On this basis, the average relief load trebled, and the annual expenditures more than doubled within this 3-year period - and all this occurred while assistance was still regarded as poor relief.

Private welfare agencies, moreover, were not in a position to render much assistance. Societies of this character had been comparatively underdeveloped in Manchester. In 1929, for example, there were only three agencies of any importance in addition to the Salvation Army: Family Welfare, Children's Aid Society, and the Milk Fund. These four agencies in 1929 expended \$21,040, about one-third being contributed by the Salvation Army; in 1932 these same agencies were able to increase their expenditures only to \$28,543, more than a third being contributed by the Salvation Army.²³

²²"Temporary Aid to Unemployed," *Second Annual Report: 1894* (Concord, N. H.: Bureau of Labor, State of New Hampshire, 1894), pp. 437-8.

²³How much aid may have been extended through church agencies is not known.

Amoskeag in its relatively more prosperous days had also engaged in some welfare activities, but after the 1922 strike these efforts virtually ceased. Consequently, when many of their workers needed aid in the winter of 1930-31 because of wholesale lay-offs and part-time employment, there were no company facilities or funds at hand and it was necessary to start anew in organizing a relief fund. In November 1930 the management agreed to match every dollar contributed by the workers, but it discontinued its contribution after the workers had raised \$1,800. Nevertheless the workers, in the face of evident need, continued to contribute their nickels and dimes through April 1931. Their total contribution was \$6,000.²⁴

Thus in Manchester as elsewhere the relief facilities were inadequate to cope with the unemployment of unprecedented magnitude. Accordingly, assistance from the Federal and State governments that began to assume a responsibility early in 1933 was most welcome. Along with this awakening to responsibility went the general realization that the individual was not solely or even mainly responsible in most instances for his unemployment. With this change in attitude the stigma of pauperization was removed from relief application.

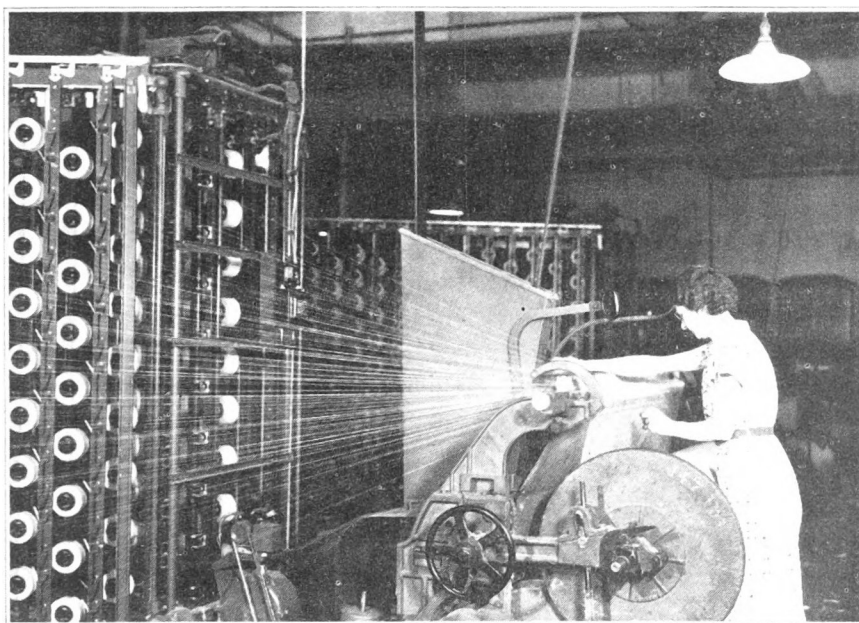
Because of changes in the administrative unit there are no adequate statistics on relief for Manchester in 1933. From 1934 to date, however, the statistical data are satisfactory. In 1934, when operations at Amoskeag and in the local shoe factories were well above the depression levels of 1932, the average case load for general relief was 2,479, or slightly above the average for 1932.

In 1934, 13.2 percent, on the average, of all families in Manchester received general relief²⁵ (table F-4). Of the 18 other New England cities for which comparable percentages can be computed, only in 6 (Boston, Fall River, Lynn, Springfield, Brockton, and Worcester ranked in order of the size of the excess, beginning with the largest) did the relative burden exceed Manchester's.²⁶ Thus even before the closing of the Amoskeag

²⁴See appendix C.

²⁵General relief includes both direct relief (in cash or in kind) extended by public relief agencies and wages paid to persons employed on local work-relief projects. Employment in Civil Works Administration projects is not included.

²⁶The most instructive comparisons would be with Lawrence and Lowell, both textile cities in the Merrimack Valley. Unfortunately, adequate statistics are not available for these cities in 1934.



WPA - National Research Project (*Hine*)

FIGURE 13.- HIGH-SPEED BEAM WARPERS

This machine, which takes threads from hundreds of spools to form a warp, stops automatically when a thread breaks.

mills, Manchester's relief burden was already considerably more onerous than in most of New England's larger cities.²⁷

The peak relief load in Manchester, however, had yet to be reached. Naturally, the gradual running out of work by the Amoskeag mills, begun in the early spring of 1935, and their final closing in September would be reflected in the size of the relief rolls. Thus in the first quarter of 1935 the average case load was 2,819 compared with 3,170 in the second quarter. The definite closing in September drove many who had been holding out in hope of an early reopening of the mills to ask for assistance. Accordingly, the August relief load of 3,491 cases was increased to 4,118 in the following month. The all-time peak in general relief (excluding WPA employment) was reached in November with a case load of 4,270 involving 16,216 persons. This meant that 22.8 percent of Manchester's families and 21.2 percent of its population received general assistance in that month.

²⁷ If Boston with 20.4 percent of its families receiving general relief is excluded from the total of 18 cities, the average percentage for the remaining 17 cities is 11.8 compared with 13.2 for Manchester.

Manchester's average case load in 1935 was 3,467 or 18.5 percent of all families. This represented an increase of 40 percent over the previous year. Of the other 18 New England cities, only in Waterbury, Connecticut, where the case load was comparatively small, was the relative increase larger. And in only two of these cities (Boston and Fall River) was the percentage of families on relief higher than in Manchester.²⁸

From our account of employment opportunities in Manchester during 1936 there was every reason to expect a mounting relief load above the 1935 level. We know, for example, that a company representative in reporting on his survey of the tenants in the mill houses in December 1935 (see page 75) observed that "a large number of the occupants have not as yet gone on the relief rolls, but from statements they make it won't be long before they will be compelled to seek relief." The only reason why they were not compelled to seek general relief was the advent of the WPA program.

Although WPA employment began in Manchester in the fall of 1935, it did not have any appreciable effect upon the relief rolls until the following February, when 3,752 persons were employed on WPA projects and 3,160 families, about 1,100 less than the November peak, received general relief. The average number given WPA employment in 1936 was 3,513, with some tapering off in the summer and with additions to the pay roll as winter approached. As a consequence of this Federal Works Program the average number of cases receiving general relief in 1936, including those whose WPA earnings were insufficient and required supplementation, was 18 percent less than the average for 1935. The important consideration, however, is the extent of dependency upon Government aid regardless of its type and the source of funds. Since WPA employment was limited to one person in each family, the number so employed, minus those also receiving general relief as a supplement, when added to the total number receiving general relief would represent the total case load dependent upon Government assistance.²⁹ In 1936 the average case load was 5,413; that is, 28.9 percent of all families in Manchester received Government aid.

²⁸The comparative figures for 1935 used in the text exclude persons employed on WPA projects, which began in September, unless their WPA earnings were supplemented by general-relief grants. If all WPA workers were included, the average number of cases for Manchester in 1935 would have been 3,693, or 19.7 percent of all families.

²⁹These figures do not include persons employed on Public Works Administration or emergency Works Program projects other than WPA, in Civilian Conservation Corps camps, or aided through the National Youth Administration programs.

With the establishment of new companies in the Amoskeag mills in 1937, which by July had employed more than 3,000 workers, there were moderate decreases in the number on the WPA pay roll as well as in the number receiving general relief. But even in this year of relative prosperity the joint case load was of such proportions that one-quarter of the city's families, on the average, were dependent upon Government assistance. In the first 9 months of 1938, with the withdrawal of Pacific Mills and the curtailed employment in the other companies in the Amoskeag mills, the joint case load was once more at the 1936 level when 28.8 percent of the families received public aid; during these same months unemployment-compensation claims were being paid. Clearly, without direct Government aid distress would have been extreme and in a short time would have enveloped also the commercial activities of the city.

On the basis of general relief only (that is, excluding WPA) 11.6 and 12.6 percent of all families in Manchester received relief in 1937 and in the first 9 months of 1938, respectively. In no one of the other 23 New England cities were the respective percentages as high as in Manchester. Even in Lowell, also once an important textile center, the percentages were only 6.8 and 8.8. Manchester, then, stands out in high relief, and by New England standards, at least, it must be regarded since the shut-down as a town on relief.

What this meant to the business community can be readily appreciated from the sums expended for relief. In 1934 this expenditure reached \$886,648, the Federal contribution amounting to 35 percent of the total. With the gradual closing of the Amoskeag mills in 1935, the total for direct relief and WPA wages was \$1,460,041, of which about one-quarter represented the share of the Federal Government. In the same year food stores in Manchester reported to the *Census of Business* sales of \$9,082,000.³⁰ We know from records in the Manchester relief office that 53.7 percent of the total grants for general relief was spent on food and household necessities.³¹ On the assumption that WPA earnings were spent in the same way, almost 10 percent of the sales in Manchester's food stores may be

³⁰*Census of Business: 1935*, Vol. III, "Retail Distribution" (U. S. Dept. Com., Bur. Census, Dec. 1936), p. 186.

³¹Virtually all relief grants in Manchester are in kind (grocery orders). The figure 53.7 percent is based on expenditures in 1937.

said to have been subsidized by the local, State, and Federal governments.

The peak in Government assistance was in 1936 (table 27). The expenditures for general relief and WPA wages then amounted to \$3,282,553, more than double the sum for the previous year. The contribution of the Federal Government was increased nearly sevenfold and equaled 70 percent of the total. By our accounting, \$1,762,731 was spent on food and household necessities. If sales in the food stores were equal to the 1935 volume, which is improbable, the Government subsidy would have been the source of payment for more than 19 percent of their sales.³²

Although the operations of the new companies established in the Amoskeag mills during 1937 provided \$2,200,000 in wages, the combined expenditures for general relief and WPA pay rolls were reduced by only \$600,000 from the preceding year. Again the Federal Government contributed more than 70 percent of the total. If we assume once more that food-store sales in that year were about equal to those in 1935,³³ which is quite probable, Government funds in a year of prosperity, relatively speaking, paid for nearly 16 percent of sales in the food stores.

The evidence is unmistakable, then, that it was Government assistance that maintained the health and morale of about one-quarter of Manchester's population and was a real sustaining force to its entire commercial life. The evidence is equally strong that some very real material benefits accrued to the community in general from the emergency Works Program activities. Thus, from the inception of the WPA program in September 1935 to May 31, 1938, \$5,941,722 was spent in Manchester, including sponsors' contributions. Of this amount 27.3 percent

³²It is improbable that food-store sales in 1936 were equal to sales in 1935 since Amoskeag paid out \$4,200,000 in wages in the latter year and nothing in 1936, whereas relief payments were increased by only \$1,800,000. It is probable that there had been some expansion of employment in Manchester's shoe factories in 1936 over 1935 and that some were employed for part of the year at least in textile factories of neighboring communities. It is unlikely, however, that the wages from both sources were equal to the difference of \$2,400,000 between the Amoskeag wage bill and the added relief disbursements. It is thought that this would be reflected in food-store sales despite the fact that they deal in necessities. An offsetting consideration is the fact that the index of the average retail cost of all foods in Manchester in 1936 was 83.0 compared with 80.8 in 1935, according to *Retail Prices*, compiled by the Retail Price and Cost of Living Divisions of the U. S. Department of Labor, Bureau of Labor Statistics (Serial No. R. 384, p. 11 and Serial No. R. 506, p. 14).

³³At this writing the 1937 retail-sales figures for Manchester have not been released by the *Census of Business*. The index of the average retail cost of all foods for Manchester in 1937 was 85.4.

Table 27.- NUMBER OF PERSONS IN CASES RECEIVING GENERAL RELIEF AND AMOUNT OF RELIEF EXTENDED IN MANCHESTER, APRIL 1933-SEPTEMBER 1938^a

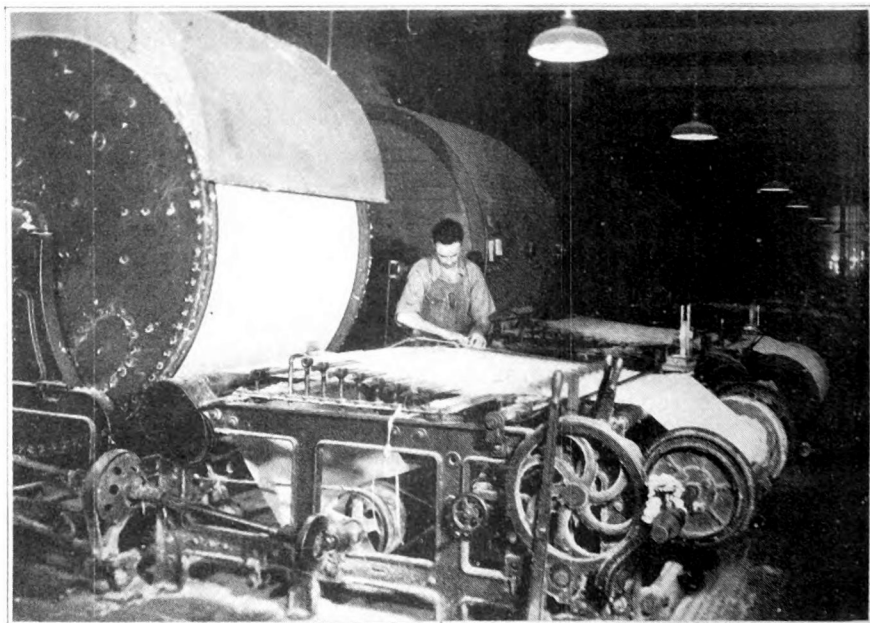
Year and month ^b	Total number of persons	Amount extended (dollars)	Year and month ^b	Total number of persons	Amount extended (dollars)
1933			1936		
Apr.	17,147	80,495	Jan.	14,154	151,351
May	15,836	81,627	Feb.	11,925	109,150
June	14,988	74,428	Mar.	9,807	94,608
July	n.a.	37,877	Apr.	9,329	80,603
Aug.	n.a.	38,529	May	8,390	72,352
Sept.	n.a.	39,343	June	10,247	80,397
Oct.	n.a.	47,361	July	9,201	66,660
Nov.	10,114	62,019	Aug.	9,308	65,306
Dec.	8,523	74,497	Sept.	8,584	63,861
			Oct.	9,301	74,270
1934			Nov.	9,061	62,256
Jan.	9,244	61,453	Dec.	8,624	66,743
Feb.	8,076	50,347			
Mar.	6,775	48,321	1937		
Apr.	7,460	65,885	Jan.	8,790	67,735
May	6,481	72,122	Feb.	9,545	56,709
June	6,152	56,954	Mar.	8,462	60,885
July	6,868	53,702	Apr.	7,728	53,769
Aug.	8,299	61,073	May	7,368	49,219
Sept.	7,041	72,273	June	8,382	49,024
Oct.	9,692	79,191	July	8,006	46,896
Nov.	8,038	73,730	Aug.	7,630	46,202
Dec.	9,084	76,949	Sept.	7,854	56,767
			Oct.	8,564	58,438
1935			Nov.	9,586	73,814
Jan.	8,899	61,701	Dec.	10,589	85,153
Feb.	9,876	72,669			
Mar.	11,142	90,335	1938		
Apr.	10,409	82,069	Jan.	10,010	80,497
May	11,173	100,707	Feb.	10,012	78,548
June	11,479	98,843	Mar.	9,312	69,759
July	12,587	102,460	Apr.	8,833	63,421
Aug.	11,824	93,082	May	8,362	57,935
Sept.	15,414	114,303	June	8,862	60,711
Oct.	14,667	146,293	July	8,466	66,798
Nov.	16,216	139,898	Aug.	8,326	77,161
Dec.	14,709	150,231	Sept.	8,629	63,212

^aData for April 1933 to December 1936 from a special tabulation made for NRP by the Federal Emergency Relief Administration for New Hampshire; for January 1937 to September 1938 from the New Hampshire State Board of Welfare and Relief.

^bFigures for April 1933 through January 1934 represent all of Hillsborough County, N. H.

n.a. Data not available.

was expended for sewage systems; 16.7 percent for the improvement of highways, roads, and streets; 10.7 percent on recreational facilities; 8.2 percent on publicly owned and operated utilities; and a similar proportion on airports and airways. Of indirect benefit to the community at large was the million and a half dollars, or 26 percent of the total, devoted to the sewing project which produced clothes for the relief clients.



WPA - National Research Project (*Hine*)

FIGURE 14.- SLASHERS PERFORM THE LAST STEP IN THE PREPARATION OF A WARP

This machine, occupying a space 35 x 7 feet, starches and dries the threads of the warp.

Although the number receiving general relief has remained at a relatively high level for several years, it would be false to infer from this that the entire number receiving relief has constituted a group of chronic unemployed. From March 1937 to June 1938 complete statistics are available on cases closed and added. This period embraced months of industrial revival as well as months of recession, the latter being more numerous. In this 16-month period, 4,431 cases received relief, exclusive of cases receiving only supplementary relief. Of this number, 1,587 cases, or 35.8 percent of the total, left the relief rolls because of reemployment in private industry. On the

other hand, of the 3,064 cases added to the relief rolls during this period (exclusive of the supplementary-relief cases), 1,912, or 62.4 percent, were obliged to seek relief because they had lost their employment in private industry within the 4 months preceding their application for relief. Moreover, 82.8 percent of all cases added (including supplementary-relief cases) had previously received general relief.³⁴ All these relationships suggest that even under the adverse circumstances that prevailed, there was considerable turn-over in the relief population.

SOME OTHER CONSIDERATIONS

Mention should also be made of other considerations directly or indirectly affected by the shut-down. They are demographic and occupational in character and have long-run effects; they began before the shut-down and have continued after that event. Among these considerations and of primary importance is the fact that Manchester's population has been becoming older. This, of course, has been true of our entire population, especially the increasing proportion that is resident in urban communities (table 28). The increase in age had proceeded further in the case of the urban population of New England than in the entire urban population, but not quite so far as in Manchester. This situation obtained despite the fact that in Manchester, as well as in all cities of the region, the percentages of the respective populations represented by persons under 20 years of age were slightly higher than in the total urban population of the country both in 1920 and 1930. The rate of the decennial change in the proportion in that age group was highest for the total urban population. Accordingly, it must be due to emigration that those between 20 and 44 years of age constituted a smaller fraction of their respective totals in Manchester and New England cities than in all cities. The decennial decrease in this percentage was sharpest in Manchester, as was the concomitant increase in the percentage aged 45 or over.

This shift in the age composition of Manchester's population suggests that in the not-so-far-off future Manchester may well be handicapped in the competition of attracting new industry

³⁴Similar data are not available for WPA workers in Manchester.

Table 28.- PERCENTAGE DISTRIBUTION OF POPULATION IN MANCHESTER,
URBAN NEW ENGLAND, AND URBAN UNITED STATES, BY AGE,
1920 AND 1930^a

Locality	Age in years								Unknown	
	Under 20		20-44		45-64		65 or over			
	1920	1930	1920	1930	1920	1930	1920	1930	1920	1930
Manchester	37.6	36.7	40.2	37.4	17.5	19.4	4.6	6.4	0.1	0.1
Urban New England	36.3	35.6	40.2	38.5	18.3	19.7	5.1	6.1	.1	.1
Urban United States	35.8	34.8	42.7	42.3	17.0	18.2	4.2	5.1	.2	.1

^aData for: 1920 from *Fourteenth Census of the United States: 1920, "Population"* (U. S. Dept. Com., Bur. Census, 1923), vol. III, p. 628; and 1930 from *Fifteenth Census of the United States: 1930, "Population"* (U. S. Dept. Com., Bur. Census, 1933), vol. II, pp. 587, 718, 773.

because of the decline in the absolute number of workers in the most productive age group. That is, this trend in age composition may be expected to persist in view of the sharp drop in the fertility rate. Unfortunately, refined measurements cannot be made in the absence of mortality rates by sex for specific age groups of Manchester's population. Some crude measurements, however, have indicative value.

The number of children under 5 years of age per 1,000 women aged 20 to 44 in Manchester was 492 in 1920 and 399 in 1930, a decline of nearly one-fifth. The comparable rates for all communities in the United States with populations between 25,000 and 100,000 were 472 and 393, involving a decline of about 17 percent.³⁵ Dr. O. E. Baker has computed fertility rates (children under 5 years per 1,000 women aged 15 to 44) as of 1930 by States and for cities with populations of 25,000 to 100,000. For cities in the New England States the rates varied from 345 in Massachusetts to 375 in Rhode Island. For all cities in this size group the rate was 341. In Manchester the comparable rate was 322.

Moreover, the continuance after 1930 of Manchester's declining fertility rate seems clear from the number of births in subsequent years. Without the requisite mortality rates and assumptions on the volume of internal migration, fertility rates cannot be computed for intercensal years. But in the

³⁵Rates for the United States were adapted from Frank Lorimer and Frederick Osborn, *Dynamics of Population* (New York: The Macmillan Co., 1934), p. 28.

absence of catastrophic acts of God or mass migration, the absolute decline in the number of women in the childbearing age cannot be large over a 10-year period. If, therefore, there should be an appreciable decline in the number of births, it could not be wholly explained by the smaller number of women of childbearing age.³⁶

Over the 5-year interval 1925-29, the number of births per year was 1,642. In the succeeding 5-year period, 1930-34, the annual average of births was 1,289, a decline of 21.5 percent. For the 4 years following the Amoskeag shut-down, 1935-38, the births per year numbered 1,209, a further decline of 6.2 percent from the preceding quinquennium. Declines of these magnitudes cannot be accounted for by the diminution in the number of women of childbearing age that probably took place over these same years.

The fewer births occurred despite the increase in the number of marriages, which itself is contrary to expectation when the number of women reaching marriageable age (15 years or over) is declining. For example, the number of marriages per year between 1925 and 1929 was 613 and remained at about the same level (607) during the next 5-year interval. The annual average number in the 4 years following the closing of the Amoskeag mills, however, was 700, an increase of 15 percent over the average number of the preceding period.³⁷ This provides some basis for the belief that an increasing percentage of women regarded marriage as an adjustment to the loss of employment opportunities. It should not be inferred that this necessarily means the withdrawal of that number of women from the labor market, especially if they continue to refrain from raising large families.³⁸

Another long-run adjustment that deserves mention is the lack of interest of the younger generation in millwork. This had come to be of some concern to the Amoskeag personnel officer to

³⁶The number of women in Manchester between the ages of 20 and 44 declined by 7.5 percent between 1920 and 1930. If we are right in assuming a smaller volume of emigration between 1930 and 1940 than in the preceding decade, this decline should not be as large during the decade of the 1930's.

³⁷It is not without interest that in 1926, according to a census of religions taken by the U. S. Bureau of the Census, 80 percent of all church members in Manchester and 60 percent of its 1920 population were members of the Roman Catholic Church. Statistics adapted from *The World Almanac, 1938* (New York: New York World-Telegram, 1938), pp. 260, 266.

³⁸For the same periods the deaths per year were 929, 872, and 860, respectively. This trend is not usually associated with an aging population. The reduction in the number of births very probably has an important effect on total deaths since infant mortality rates are still very high.

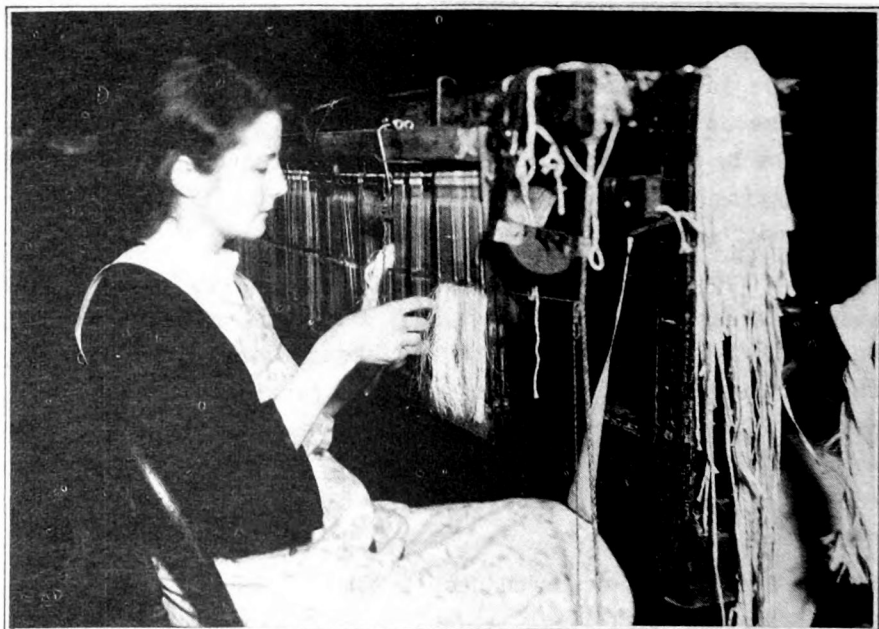
WPA - National Research Project (*Hine*)

FIGURE 15.- DRAWER-IN ENTERING A NEW WARP

judge by his observations in his report of families living in the mill tenements in December 1935 (see page 75). From that source we learn that

the tenement occupants show great interest and make every sacrifice to further the education of their children. Graduates from grammar schools attend the high school and in a number of cases are attending colleges and universities.

The young women have their minds set on training to be beauty specialists, nurses, school teachers, musicians, dancers, stenographers, and nuns.

A very small percentage of the heads of families display any interest in having their children employed in the mills permanently.

There are some large families where the older children of legal [working] age . . . obtain employment to assist the parents in providing an education for the younger children. I venture that 75% of the young men and women under 21 years of age living in Company tenements have no intention or desire to work in the mills.

A noticeable feature in the attitude of the boys from sixteen to twenty one years of age is their lack of interest in any job requiring manual labor.

Not even the mechanical trades which were so attractive a generation ago have any appeal to them. This attitude is puzzling. If you ask the young man what he proposes to earn his living at he will shrug his shoulders and say, "Don't know." Just trying pot luck that sometime, somewhere, he will get a break but he does not intend to make much effort to get the so-called break.

It is evident that not much can be expected in the way of future textile workers from the families now occupying tenements. Nearly 30% of the members [living in company tenements and] employed in gainful occupations are employed outside the mills.

There is no reason to believe that this was not a characteristic development among the mill families residing outside the company tenements, with the exception of the Portuguese. Because of the exceptional behavior of this nationality group the report recommended that

the tenements located in Amoskeag Village would make an ideal colony for Portuguese families. We have had harmonious relations with the Portuguese as employees and my experience with them is they don't want to be influenced by labor agitators, preferring to work out their own destinies. These families are usually large and have no other interest than being a factory worker.

The occupational shift described by the personnel officer would appear to be in the desired direction. If manufactures will not develop in Manchester to the point of absorbing the present labor supply, there is no point in training the younger persons for millwork. Moreover, preparation for jobs in the services and trade would best fit them for employment in other localities.

CHAPTER V

COMMUNITY EFFORTS TO ATTRACT NEW INDUSTRIES

FORMATION OF AMOSKEAG INDUSTRIES, INCORPORATED

The difficulties of reemployment of the former Amoskeag workers a year or so after the shut-down were currently realized by the leading citizens of Manchester. They appreciated also that the dismantling of the mills attendant upon liquidation would have reduced further the already slim chances of these persons finding local employment. Accordingly, when the court ordered the liquidation of the company in July 1936, as previously related (see chapter III), a citizens' committee of 17 was not slow in organizing a corporation for the purpose of buying the Amoskeag properties with a view to a gradual and orderly liquidation through the sale or lease of mill space and machinery to new companies in contradistinction to sale for "junking" the mills.

While the idea of attracting new employers to Manchester achieved added pertinence after the shut-down, it was by no means a new idea that was being entertained for the first time by the community. The suggestion had even occurred to the Amoskeag Board of Trustees after the company's decline had become plainly evident. Thus we know from a report in the *Boston News Bureau* (February 18, 1928, page 2) that Amoskeag officials notified the mayor of Manchester that "they will lease any unused portions of the mills. Heat, light and power will be sold to the lessees by the company. . . . Negotiations have been entered into to bring new industries here." Six months later Amoskeag had completed negotiations for the lease of Number 12 weave shed to the Apt Shoe Company of Exeter, New Hampshire,¹ and by the end of the year four concerns had leased unused Amoskeag mills.²

Whether the company induced others to take up space is not known, but probably it did not. However, after the shut-down but before the liquidation was ordered, a company building

¹*Boston News Bureau*, July 27, 1928, p. 2.

²*Ibid.*, December 24, 1928, p. 1.

was rented by the J. F. McElwain Company, one of the largest manufacturers of shoes in New England. Although the Manchester city government early in 1936 paid \$1,500 as moving expenses to another shoe company to locate in Manchester, it occupied mill space outside of the Amoskeag mill yard. It would appear from this evidence, then, that the organization of Amoskeag Industries, Incorporated, was a more effective method of continuing a policy initiated earlier.

The new liquidating corporation could not have secured much encouragement for its task from the record of new companies that located in Manchester in the decade and a half preceding its organization. Between 1921 and the fall of 1936, when Amoskeag Industries got under way, 62 manufacturing companies employing 10 or more workers had started operations in Manchester. More than half, 34 of the 62 companies, had been engaged in manufacturing either boots and shoes or accessories of this industry; 6 companies produced some item of clothing; and 5 processed food products. The remainder, 17, were too miscellaneous for classification. The predominance of the shoe companies is more truly revealed by measuring the volume of new enterprises in terms of wage jobs. Out of a total of 7,657 jobs created by the 62 companies, 6,283 (82 percent) were in the shoe or related industries. Thus Manchester, already a shoe-manufacturing center in 1920, succeeded chiefly in the following 15 years in attracting additional shoe manufacturers. Virtually no progress had been made toward industrial diversification.³

Little comfort could be derived, either, from the degree of mortality among the incoming firms. Of the 62 companies that were established in Manchester between 1921 and the fall of 1936, 37 companies involving 3,973 jobs either failed or moved from Manchester; 23 of these, accounting for 3,383 jobs, were shoe manufacturers. To complete the survey it is necessary to add the failure in this 16-year period of 23 additional companies, exclusive of Amoskeag, employing 10 or more persons. These had been established in Manchester prior to 1921. In the

³The information on new enterprises and those that have failed or moved out has been compiled from reports on file with the New Hampshire Department of Labor. A change in ownership has not been considered as a failure of an old company or the creation of a new enterprise. The number employed is not an average but merely the number that happened to be employed on the day the factory inspector called.

last year of their operations these 23 companies had offered 2,891 jobs.

Those responsible for the formation of Amoskeag Industries probably reasoned that the existence or nonexistence of the Amoskeag Manufacturing Company as a going concern would appreciably affect the possibilities of attracting industry to Manchester. In the first place, the company, even in the decade of the twenties, still owned a large portion of the unimproved land in the city, and since unused factory buildings were not numerous, an incoming enterprise of any size would very likely have to deal with Amoskeag. Because of this situation the company in many instances could directly control the establishment in the city of any large competitor for its labor supply. Indirect pressure to the same end could be exercised by the company through the municipal government and the chamber of commerce by virtue of its being far and away the largest taxpayer and employer of labor in the city.

The shoe industry got its start in Manchester by locating on the outskirts of the city on land that Amoskeag never owned. Once established, the industry developed its own labor supply and did not seriously interfere with Amoskeag's. Accordingly, the only large employers entering Manchester after 1921 while Amoskeag was operating were shoe manufacturers, and these represented very little of a net addition but were more in the nature of new companies replacing those that had failed - a more or less normal turn-over in the shoe business.

With the liquidation of Amoskeag this sort of pressure was removed, and nearly 7,000,000 square feet of floor space were made available. It is obvious that the changed circumstances would facilitate the location of new companies and possibly a more diversified type of industry in Manchester. The crucial question, however, was whether new companies would locate in Manchester in sufficient number to compensate for the loss of employment resulting from the closing of the Amoskeag mills. In an attempt to answer this query a survey was undertaken of the results of the activities of Amoskeag Industries, Incorporated, in the first 2 years of its operation.⁴

⁴Hereafter in this chapter "the Industries" refers to Amoskeag Industries, Incorporated.

POLICIES OF AMOSKEAG INDUSTRIES, INCORPORATED

Amoskeag Industries, Incorporated,⁵ purchased all the properties of the Amoskeag Manufacturing Company for \$5,000,000. To appreciate subsequent developments it is necessary to know the source of the purchase money. It may be recalled from the concluding discussion of chapter III that Manchester residents pledged to purchase \$500,000 worth of stock; the Public Service Company of New Hampshire agreed to repurchase the Amoskeag hydroelectric station, canals, and water wheels for \$2,250,000; and the financial institutions of the city agreed to a loan of an equal amount.

The entire arrangement for attracting industry possessed advantages over similar attempts in other New England cities, such as Lowell, New Bedford, and Fall River. The abandoned textile mills in any one of these cities had not been owned by one corporation; as a consequence there were competing units in liquidation in contrast to the coordinated and integrated plan which could have been rather easily evolved from the Amoskeag situation. One large unit could more easily provide services than a small unit could not afford to supply. The very vital economic interests of the Manchester banks in the salvaging possibilities gave to the Industries another advantage - the possibility of providing an incoming enterprise with credit more readily than could have been done if the banks had had no immediate and direct interest in disposing of mill space and equipment. This was accomplished through the Industries borrowing from the banks against its total assets and then lending these same funds to individual enterprises which probably were not eligible for a loan from the banks.

Since Amoskeag Industries is a liquidating corporation, it has been primarily interested in disposing of its property to purchasers rather than to tenants. Sale, moreover, is more indicative of the potential stability of employment to be provided by the incoming company than is rental, and the owners

⁵According to the statement of Amoskeag Industries as of December 1938, 7 of the 13 directors represent local financial institutions; 4 are local business persons; 1 represents the city's newspaper publisher; and 1 represents the Public Service Company. However, since the four businessmen, the publisher, and the representative of the Public Service Company are all members of at least one financial institution located in Manchester, the banks and the public utility may well be said to have complete control of Amoskeag Industries. Of the 15 directors of the Public Service Company of New Hampshire, 8 serve on one or more directorates of Manchester's financial institutions. The executive officer, called the agent, is president of the leading Manchester savings bank and a member of the board of directors of the leading national bank and of the Public Service Company.

of the Industries, as well as the community in general, had every reason to be interested in this sort of stability.

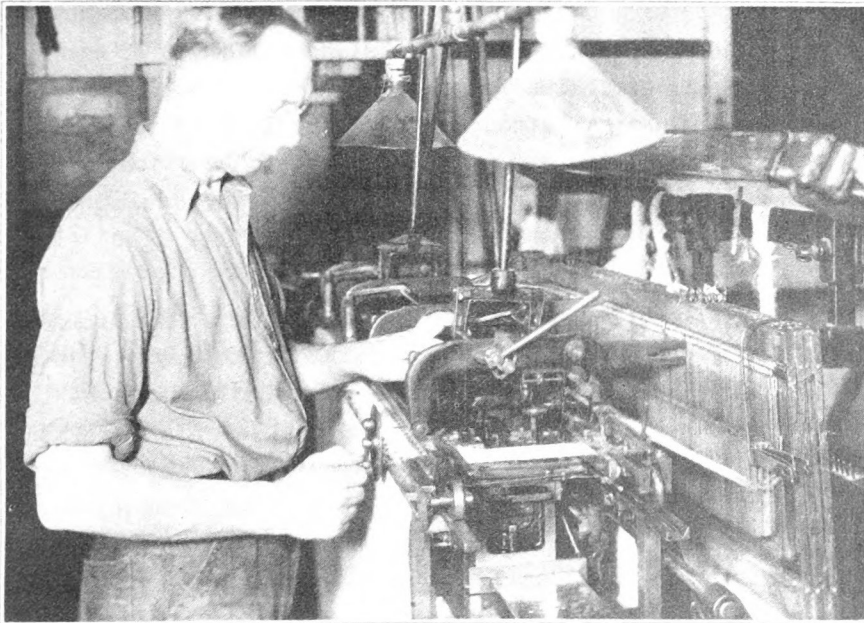
Accordingly, the terms of sale appear moderately liberal. The initial investment required is only 25 percent of the purchase price. Amoskeag Industries will accept a mortgage for the balance, bearing an interest rate of 5 percent and amortized over 3 to 10 years depending on their estimate of the purchaser's financial responsibility and of the volume of employment to be provided by the enterprise. Similar arrangements cover the sale of machinery to be used in Manchester, except that in these instances the rate of interest on the unpaid balance is 6 percent.

The usual rental lease runs for 5 years. The rental includes heat and the cost of improvements amortized over the 5 years. The rental is so calculated as to average $12\frac{1}{2}$ cents per square foot per annum over the 5 years. The tenant, however, has the option of withdrawing from the lease at the end of the third year upon payment of the unamortized balance of the costs incurred for improvements. It is also possible to arrange for a graduated rental that increases with the passage of the years so long as it averages $12\frac{1}{2}$ cents per square foot per annum over the period. This really amounts to deferring payment on the amortized cost of improvements. On occasion, the Industries has been willing to help an incoming concern get started by exempting it from rental payments in the first month or two. In such instances the effective date of the lease begins with the payment of rent.

Process steam is available from the Industries on a metered basis. Gas, electric power, and water are available from the local utilities. The latter is municipally owned and operated. The mill buildings are provided with railroad sidings and loading platforms.

Concerns moving in from other locations often have asked the Industries to pay the moving expenses. This request has been refused without exception in the belief that if such assistance is actually needed, the company is not in a financially sound condition. It is realized also that someone else could just as easily pay the concern to move out of the Amoskeag mills.

An enterprise from another locality applying for space undergoes a certain amount of investigation. Banking references



WPA - National Research Project (Hine)

FIGURE 16.- WORKER OPERATING A MACHINE WHICH AUTOMATICALLY TIES
THE ENDS OF ONE WARP TO THOSE OF ANOTHER
THAT IS TO REPLACE IT

are checked to establish the degree of financial stability, and the Industries consults the local chamber of commerce to ascertain the concern's reputation for fair dealing in general and with labor in particular. An enterprise that is just being organized is discouraged from starting actual operations in Manchester unless it sounds convincing on its specific and definite plans for marketing its product. A consideration as obvious as this is often slighted by an inexperienced manufacturer in his overenthusiasm for being on his own.

Amoskeag Industries is able to offer incoming concerns expert advice on plant lay-out and machinery installations. It is also in a position to lend money to or to contribute to the capital of a corporation through the purchase of stock, through the close connection of the Industries with the local banks.

Publicity for the activities of the Industries was readily available. In the first place, the Amoskeag Manufacturing Company had enjoyed an enviable reputation in the trade, and as a consequence its subsequent fate made news in trade and financial journals and newspapers. The fact of the formal

organization of the liquidating or promoting corporation as a citizens' committee possessed a considerable degree of novelty which also had news value. Moreover, the committee was able to get off to a quick, strong start. The Industries was not slow to use these favorable circumstances in a "ballyhoo" which, with the aid of feature articles in the popular magazines and Sunday supplements and with a "March of Time" film, soon reached exaggerated proportions.

Another all-important consideration was the fact that Amoskeag Industries was launched during a period of recovery. Also of considerable importance was the fact that the remnants of the textile workers' union entered into a gentleman's agreement with the Industries to refrain from any organizing activity for some months in order not to frighten off timid employers.

On the surface, then, it appeared that all things were conspiring to make the experiment a success. What considerations led companies to locate in Manchester and to what extent were the expectations of the auspicious inaugural fulfilled?

When Amoskeag Industries began its campaign to attract new concerns to Manchester, the textile industry was once more undergoing a cyclical upswing. Many of the mills in the neighboring cities and towns operated with a third shift, which provided job opportunities for some former Amoskeag operatives. For some of the mills the actual or prospective increase in business could be accommodated only by additional plant capacity. For mills in that condition Manchester had a decided attraction: there was mill space awaiting occupancy and machinery and trained textile workers ready to be put into use. Those first to arrive on the scene would have the pick of both the machines and workers.

NEW TEXTILE COMPANIES AND RELATED CONCERNS

Pacific Mills was in this expansive state in the fall of 1936. This company was the first to start up in the mill yard. It leased about 1,200,000 square feet and purchased Amoskeag's most modern machinery for the manufacture of print cloth which was finished at its own plant in Lawrence. Despite the fact that its capital investment in modern machinery was made at liquidation prices and despite the application of the principles of scientific management and the payment of only

the "going wages", the mill was unable to compete with the southern manufacturers of print cloth. As a consequence, the company soon found that it was manufacturing for inventory only. This situation was aggravated, of course, by the recession in textile business that set in during the summer of 1937. A year later, and after many months of part-time operations, the company withdrew from Manchester and moved the machinery, among Amoskeag's best, to its plant at Dover, some 40 miles east of Manchester.

Subsequent developments of Pacific Mills are not without significance for Manchester. In the fall of 1938 there was another revival in the textile industry, and the Dover plant, now producing a blended fabric, had to start up a third shift which was staffed in part by its former employees in Manchester. Amoskeag Industries, on the other hand, was somewhat handicapped in taking advantage of these improved conditions since it had lost its best machinery.

Other textile companies that followed close upon Pacific's entrance into the mill yard also involved the expansion of going concerns. Thus the Chicopee Manufacturing Company, producer of gauze and bandages for its parent corporation, Johnson and Johnson (leading manufacturer of pharmaceutical supplies), was undergoing an expansion at this time. Its demand for additional capacity was satisfied by the purchase of Amoskeag's newest mill along with its machinery. Once again the attraction was the cheapness of the capital equipment and the availability of a trained labor supply.

Since the product is not subject to seasonal fluctuation and the parent organization has well-established markets, the concern has been able to provide stable employment. Despite this, the workers are reported to prefer employment elsewhere because of the lengths to which the speed-up and stretch-out are reported to have been carried. The experience of this company also illustrates another difficulty to be faced by the displaced Manchester workers - that of technological change. Some 80 slubber tenders, for example, were dismissed when this task was eliminated through installation of improved machinery which makes this stage of the process a continuous one.

The expansion of the other textile concerns involved efforts to achieve a further degree of vertical integration. Thus

a manufacturer of men's clothing located in Philadelphia had been weaving about three-quarters of his cloth requirements some years before the failure of Amoskeag. At that time the company became interested in producing a substantial part of its own worsted yarn by the French mule-spinning process. Amoskeag still retained some mule-spinning frames of this description although they had not been used for many years. The original intention of this company had been to purchase the machinery for use elsewhere, but with mill space available at a reasonable price the company decided to purchase space as well as the machinery and establish a unit in the Amoskeag mill yard. The specialized skills were not to be found locally since mule spinning of this sort had been discontinued a long time ago. But the requisite number of workers were induced to leave Woonsocket, Rhode Island, where this type of spinning is still used. The less specialized skills were available, of course, in Manchester, and probably at lower wage rates than in Philadelphia.

A converter of rayon cloth with offices in New York City was interested in directly controlling a part of his supply. To this end this company purchased the newest machinery and inspected factory sites in virtually every seaboard State on the Atlantic before locating in an Amoskeag mill. A southern location was rejected because of the burden of transportation costs, the more or less overt hostility to a northern employer, and the possibility of costly damage to brand-new machinery resulting from training workers without any textile experience. On this showing, a site in the lower part of New England would be more economical, generally considered, than a site in the upper part of the region such as Manchester. That is, the transportation cost would be lower and labor costs about the same. However, another consideration loomed large - a lease with flexible provisions since this attempt at integration was an experimental effort. And Amoskeag Industries was willing to offer just such a lease - hence the selection of Manchester.

Another Philadelphia concern manufacturing an interlining for overcoats by a patented process was in the market for second-hand worsted machinery at the time of the formation of Amoskeag Industries. When the representatives of this company visited Manchester to inspect the machinery, they were made to realize that mill space could also be had at liquidation prices. Since

the company was intent upon producing a larger fraction of its own cloth requirements than previously, it decided to establish a unit in the mill yard by leasing space with an option to buy. This option was exercised within a short period.

A third Philadelphia concern also took advantage of the situation to engage in integration of a sort. This manufacturer of knit goods had depended for many years upon Amoskeag for his supply of knitting yarns, and, with the loss of this source of supply, no satisfactory substitute had been found. Since the former Amoskeag overseer in charge of this branch of production was well known to the Philadelphia company, it decided to provide him with financial backing sufficient to purchase Amoskeag machinery and to lease space. After operating about a year, the company was producing in excess of the requirements of its Philadelphia sponsor and was seeking outside markets.

The establishment of this unit in Manchester led to the location there of still another Philadelphia concern - a dyeing establishment. Its parent branch in Philadelphia had been doing the dyeing work for the knit-goods manufacturer for many years, and to maintain the quality of its product, the latter was anxious that the same dyeing company should provide this service on its knitting yarns. These, however, must be dyed in the tops which are purchased from the American Woolen Company located at Lawrence, Massachusetts. To dye the tops in Philadelphia would necessitate shipping the tops to Philadelphia, the dyed tops to Manchester, and the knitting yarns back to Philadelphia. By establishing a dyeing unit in Manchester, round-trip shipping costs to Philadelphia were eliminated. Equipment of the Amoskeag dyeing plant was purchased, as well as space. The supervisor is from Philadelphia, and the remaining jobs requiring little or no skill have been filled by local persons. Its capacity is in excess of that required for the dyeing work of its Philadelphia customer.

A fourth worsted unit engaged in the warping, dressing, and weaving processes had been established early in the spring of 1937. A former Amoskeag overseer with financial backing from Boston residents was the responsible personality. Nothing, however, is known about its marketing outlets - whether, for instance, it was able to regain some of the former customers of Amoskeag or whether it started from scratch. The Amoskeag mills were selected because of the cheap machinery and space

and because the workers were known to the overseer. This has been a small concern employing fewer than 50 workers.

Not much is known, either, as to why a small manufacturer of coarse cotton roving which is used in mops and as inside covering for insulation purposes, formerly operating in Ohio, located in Manchester. Presumably the availability of machines and space influenced the decision to locate in Manchester since for such unskilled work labor could scarcely be considered a factor. The shift in location did not involve any shift in customers.

There was another textile outfit operating in September 1938, which since then has closed down. This company, producing handkerchiefs, was newly organized with local capital by two former officials of Amoskeag. The product had to bear the transportation cost of the purchased warps as well as the transportation cost of the woven cloth to a finishing plant in the New York area. For such an arrangement Manchester was not an economical location.

With the establishment of these textile companies in the mill yard in units too small for each to maintain its own machine shop, cover its own rolls, or make its own shuttles, it was only to be expected that companies would be organized to supply these ancillary services to the textile industry. Three such companies were organized, and their development depends on the development of the textiles in the mill yard. Indeed, the dyeing company previously discussed might also be included in this category.

Before considering from the same point of view the new enterprises that have imparted a degree of diversification to Manchester's industrial composition, it may be well to summarize the nature of the location of new textile companies in Manchester. It was very largely, especially when measured in terms of employment, an expansion of going concerns and, in the case of four, expansion in the form of integration. Expansion was attractive at that time because of the improved outlook in business in general and textiles in particular. Expansion in Manchester was attractive because the necessary capital investment in machinery and plant could be made at liquidation prices. This was especially true of the machinery since the volume of expansion was such that there were enough machines of moderately recent design to satisfy the demand.

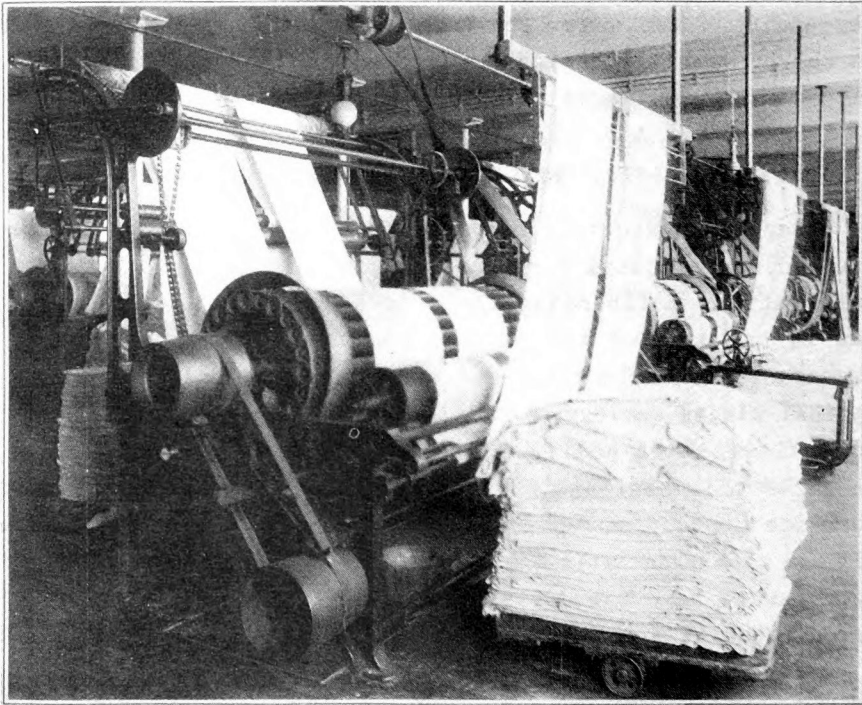
Or, perhaps, this is only another way of saying that the expansion would have been greater had there been available a larger quantity of modern equipment at liquidation prices. Moreover, workers with textile experience were available.

NONTEXTILE COMPANIES

Among the nontextile companies were four that manufactured subsidiary products for producer-goods industries. The considerations influencing their location were as specialized as in the case of the textile companies. One such concern manufactures cable clips and other metal stampings for electrical wiring devices. It is an expansion of a "cellar shop" once located in Waltham, Massachusetts. Having developed a cable clip that suited the peculiar demands of the Public Service Company of New Hampshire, the enterprise outgrew the limits of the cellar. The Public Service Company naturally was anxious to have manufacturers locate in the Amoskeag yard in order that it might have customers for power from the Amoskeag hydroelectric plant that it had purchased. Since the Public Service Company was also the all-but-exclusive market for this company, its suggestion to locate in the Amoskeag yard under these circumstances was likely to be heeded. Moreover, for a company having its major markets north of Boston, as is the case with this concern, Manchester is an economical location.

Although some of the Amoskeag machinery could have been adapted to the use of this company, nevertheless it preferred to purchase new machinery in order to minimize accidents and lost time through break-downs. The workers, with the exception of several keymen, are Manchester residents who had to undergo a training period of 6 to 12 months.

Another company in the same category is the manufacturer of electrical-coil measuring instruments. The main cost in its production is the labor cost of assembly which consists chiefly of soldering minute springs and wires, winding small coils, and calibrating. The work requires a very sensitive touch, excellent eyesight, and a disposition adapted to exacting, nerve-wracking work. Young women are most adept at this type of task, and with the closing of Amoskeag there would be many who would accept such employment at the basic rate of 30 to 40 cents per hour which this company has paid, according



Amoskeag Manufacturing Co.

FIGURE 17.— COTTON NAPPER

This machine has cylinders of fine wire which revolve rapidly to raise the nap on the cloth.

to records of the New Hampshire Minimum Wage Division. The shipping costs of the final product would be negligible since the article is small, light, compact, and of low unit value. The shipping costs on its raw materials are perhaps somewhat higher than they would be in Boston, which is an assembly point for such materials, but very probably this factor is more than compensated for by the possibility of lower wages in Manchester.

The third company producing minor articles used by producer-goods industries is the manufacturer of heat-treated chilled shot and heat-treated steel grit. Although this is a newly organized enterprise, the leading personality of the company had been in this business for many years, as was his father before him. Manchester was selected for a variety of reasons. The major consumers were expected to be the granite quarries located in and around Concord, New Hampshire, and Quincy,

Massachusetts. Accordingly, a location in northern New England was desirable. Manchester could qualify in more respects than this. A lifelong friend of the manufacturer had been in the securities business in Manchester for many years and by virtue of this was able to raise capital locally. The Amoskeag foundry was available and could be occupied with a down payment of 25 percent of the purchase price. Amoskeag Industries was ready to turn over scrap iron in the form of junked machinery in return for notes convertible into stock. The process requires soft water for which New England streams, including the Merrimack, are famous. Finally, laborers are available at lower rates than in the larger centers.

It has turned out, however, that the granite quarries have not been the main customers of this company; rather, its major markets have been in the Middle West, especially the automobile centers. The company admits that it is at a freight disadvantage for this business, but it remains in a competitive position since a midwestern manufacturer would have higher labor cost and the additional expense of treating the water supply chemically in order to soften it.

The remaining company, while it did not operate in Manchester in September 1938, located there shortly afterward. It specializes in turned-wood handles for screw drivers, hammers, and the like. For more than 60 years the company had been located in Weare, New Hampshire, about 15 miles northwest of Manchester. When, some 2 years prior to its moving to Manchester, railroad service had been discontinued on the spur line, the company realized that its location was untenable. Consequently, it utilized the destruction of its plant by the hurricane and flood in the fall of 1938 as an opportune occasion to relocate. In the Amoskeag yard, space is available on short notice, and Manchester's railroad connections to northern New Hampshire and nearby Canada (the sources of its wood supply), as well as to all markets, are excellent. Only about 20 of its working force of 65 decided to remain with the company in its new location. The remainder were hired in Manchester. This imposed no serious problem since the training period is only a matter of weeks. However, it should be made clear that while the company may be considered an addition to Manchester's employment opportunities, it cannot be regarded as a net addition to employment in the Manchester area.

Among the nontextile concerns producing consumers' goods was the manufacturer of canned vegetable soups. It is a subsidiary of a well-known manufacturer of a large variety of canned and preserved goods located in Montreal and under French-Canadian ownership. This company had decided to make a bid for the New England market, relying in part on the loyalty of the French Canadians residing in all parts of New England. For this reason a central location in the region such as Worcester, for example, would be preferred to Manchester. However, in none of the more centrally located communities was there found the necessary combination of adequate space and facilities for buying process steam. Since this venture was conceived as a cautious experiment, the company was unwilling to invest in a steam plant at the outset. In the Amoskeag yard both space and process steam were available as well as workers for the semi- or unskilled tasks involved. The chef and supervisory personnel had been transferred from the Montreal branch.

Two of the new companies are merely engaged in distributing: one is a distributor of rock-wool insulation, and the other is a depot for an out-of-town linen supply service company. Each has employed fewer than 20 workers.

A manufacturer of men's clothing is also represented in this group. This company had carried on its business in Boston where it was obliged to deal with the Amalgamated Clothing Workers of America. It attempted to avoid the necessity of collective bargaining by moving its shop to Concord, New Hampshire. The union followed the company to its new location where picketing activities led to litigation which was decided in the company's favor. This company was generally known to have been a violator of the Minimum Wage Act which protects minors and women. Concord, the seat of the State government, however, did not have an adequate labor supply for this company. Accordingly, early in 1937 it leased space from the Industries with the idea of drawing upon the large number of unemployed young women of Manchester. In this location, too, the company has been cited in complaints to the Minimum Wage Division of the State's Bureau of Labor concerning the number of apprentices or learners employed and its failure to pay the minimum rate of 25 cents per hour.

Two other concerns may have come to Manchester because of labor difficulties elsewhere. A manufacturer of cardboard shoe

counters located in a nearby town in Massachusetts was under contract to the union. It attempted to avoid the terms of the contract before its expiration by establishing a shop in Manchester and diverting its production there. The union cited the company to the National Labor Relations Board for engaging in an unfair labor practice. The union's position was sustained by the board, and the company was ordered to fill all orders from production in its Massachusetts plant up to full capacity before filling orders from its Manchester plant. Its volume of business, however, was insufficient to warrant the maintenance of two factories, and as a consequence the one in the Amoskeag yard was dismantled.

Similarly, a knit-goods concern located in the Boston area rented space in an Amoskeag mill, presumably in order to divert production from its unionized shop, although the company claimed to be interested in manufacturing another type of product. Before the company could move any machinery into the Manchester shop, however, the union workers in the Boston shop went out on strike. Since it was the beginning of the busy season, the company acceded to the demands of the union that the company observe the same labor standards (wages and hours) in Manchester as in Boston. The company then saw no advantage in maintaining the Manchester unit and sought relief from its lease with the Industries.

Finally, mention should be made of a small shoe manufacturer who leased space from one who had purchased a mill building from Amoskeag Industries, and accordingly the latter had no control over the location of this company in the mill yard. The proprietor of the shoe company had been in the same business three times before in other parts of the State, and each time had been cited for violations of the State labor laws.

TWO YEARS OF AMOSKEAG INDUSTRIES

Our criterion in judging the success of the Industries is the extent to which its activities have created new job opportunities for the residents of Manchester. Interest is therefore centered on the extent to which mill space has been occupied by companies new to Manchester, since there is no addition to Manchester's job opportunities when a concern moves into the mill yard from another location in Manchester. The only

exception to this would be those cases where a concern was expanding and where the expansion would not have occurred in Manchester unless additional mill space had been available upon the terms which actually prevailed. Such expansion had not taken place to any appreciable extent by the autumn of 1938, which is the terminal date of our survey. Accordingly, subsequent statistics are based only on the companies new to Manchester that have located in the mill yard.

The heart of the matter is revealed by the volume of employment provided by these companies as reported to the New Hampshire Unemployment Compensation Division.⁶ Since the first new company started operations in December 1936, a survey of the volume of employment may well begin with January 1937.

In January 1937 four additional companies started operations, and the five (including the one beginning operations in the preceding month) employed 2,061 persons. Two of the companies

**Table 29.- MONTHLY REPORT OF THE NUMBER OF NEW COMPANIES
LOCATED IN THE AMOSKEAG MILLS AND THEIR VOLUME OF
EMPLOYMENT, JANUARY 1937-SEPTEMBER 1938^a**

Month	1937		1938	
	Number of companies	Number employed	Number of companies	Number employed
January	5	2,061	16	2,463
February	8	2,072	17	2,516
March	8	2,098	17	2,585
April	11	2,389	18	2,554
May	12	2,479	19	1,916
June	13	3,174	19	1,527
July	14	3,190	18	1,482
August	15	3,137	19	1,627
September	15	3,096	17	1,604
October	15	2,875	-	-
November	16	2,721	-	-
December	16	2,646	-	-

^aData are from the records of the New Hampshire Bureau of Labor, Division of Unemployment Compensation; they cover only companies new to Manchester that have located in the mill yards.

⁶Each employer must report under the act if "in each of twenty different weeks, whether or not such weeks are or were consecutive, within either the current or the preceding calendar year, has or had in employment, four or more individuals, irrespective of whether the same individuals are or were employed in each such week." Public Laws of the State of New Hampshire, Section 1-H of chapter 179-A as inserted by chapter 178, Laws of 1937.

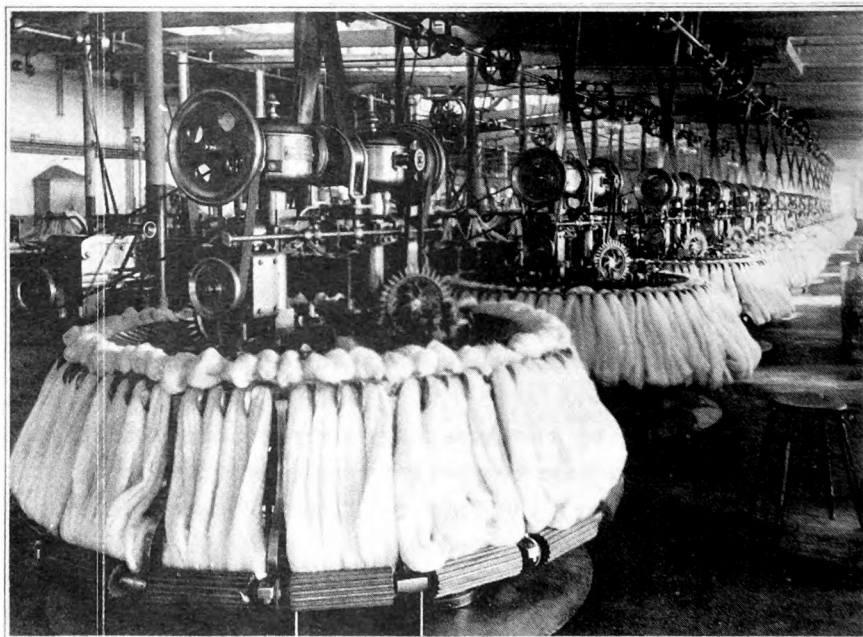
accounted for more than 1,800 of the total number. By April as many as 11 concerns had taken up space in the mill yard, but they were not large employers, as is evidenced by the fact that the total number employed was only 2,389. The peak of employment in this 21-month period was attained in July 1937 when 3,190 persons were employed by 14 companies; nearly three-quarters of the total were employed by 3 concerns.

The recession in general business which set in about the autumn of 1937 was not without its effect upon Amoskeag Industries. During the balance of 1937 only 2 additional companies were attracted to the Amoskeag mills, and in the first 9 months of the following year only 4 new concerns located there, no one of which employed as many as 30 persons. As an offset to this slight increase was the discontinuance of the largest unit, a branch of Pacific Mills, in June. Thus in September 1938, 2 years after the organization of Amoskeag Industries, Incorporated, 17 companies gave employment to 1,604 workers.

To gain some idea of the extent to which employment in the new companies was able to replace the employment that had been provided by the Amoskeag Manufacturing Company, a comparison has been made between the employment and wages paid by the latter in 1934, the last full year of operations, and the employment and wage record of the new companies in 1937. Amoskeag in 1934 employed on the average 8,852 persons and disbursed \$6,400,000 in wages. The new companies located in the mill yard 3 years later employed on the average 2,662 workers who received \$2,200,000 in wages. That is, Amoskeag Industries in its first and best year of operation to date replaced 30 percent of Amoskeag employment and 34 percent of its wage bill. Mention has already been made of the withdrawal of the branch of Pacific Mills after a year and a half of operation. This unit had employed from 1,000 to 1,500 operatives and had occupied some 1,200,000 square feet of mill space. The relative ease of starting and stopping operations was possible because the space had been leased.

The purchase of mill space for use usually involves longer attachment to the community than is the case with a short-term lease. For this reason it becomes pertinent to inquire into the extent of employment carried out on premises that have been purchased and on premises that have been leased as of September 1938.

The 17 companies reporting 1,604 workers in September 1938 occupied 2,015,303 square feet. Six of these companies, employing 1,054 workers, or two-thirds of the total, had purchased 1,494,669 square feet, or about three-fourths of the total occupied space. After the withdrawal of Pacific Mills, it is the small employers that give promise of the least permanent occupancy.



Amoskeag Manufacturing Co.

FIGURE 18.— WOOL COMBER

Wool tops are combed as they turn in this circular machine built in 1904.

One of the objectives of the Industries was to secure a diversification of industry. After 2 years of effort very little progress had been made toward the attainment of this goal. Of the 17 concerns operating in September 1938, 8 were engaged in the manufacture of textiles and 2 in closely related processes, such as roll covering and dyeing. These 10 establishments accounted for more than 80 percent of the employment. One other concern, a machinery company, may well be considered part of the textile industry since its main business has been to install and service the machines used in the mill yard. It has replaced the machinery section of the old Amoskeag with much of the personnel recruited from that disbanded section. Only four of the establishments can be said to contribute to

diversification of industry: One produces metal stampings and electrical wiring devices; another manufactures chilled steel shot and grit; a third turns out electrical-coil measuring instruments; and the fourth makes men's clothing. The aggregate employment of all four in September 1938 was only 119. In this connection mention should also be made, because of its fair prospects for development, of the soup cannery that was operating in that month but with less than four persons.

There is some information available on a few of the qualitative aspects of this new employment. For example, in 15 instances the full-time weekly hours are known. In nine establishments this amounted to a 40-hour week, in eight of them on a 5-day basis. Five others were on a 5½-day schedule with hours varying from 44 to 50. One other operated on a 5-day, 45-hour schedule.⁷

Some information is also available on hourly wage rates. Over the first 9 months of 1937 it was necessary to report to the Unemployment Compensation Division the aggregate number of man-hours together with wage payments. The division of the latter by the former would yield an average hourly wage rate for the entire employer unit without regard to occupations. It is these rates that are used. Within this 9-month period 15 establishments were operating. Of this number, nine belonged to the textile industry. For eight of these nine concerns the average hourly earnings varied from 42 to 51 cents; for one company devoted to dressing, warping, and weaving worsted goods - processes involving the better paid occupations - the average earnings were 62 cents. The comparable average for all sections of the Amoskeag Manufacturing Company in 1934 was 41 cents.

Of the three companies that provided some degree of industrial diversification, one, making metal stampings, had an average of 51 cents per hour, but the other two paid an average below that of Amoskeag in 1934. These hourly earnings were 37 and 31 cents, with the lower average in the men's clothing factory and the somewhat higher one in the establishment making the electrical-coil measuring instruments.

It appears from all this evidence that the results of 2 years' activities on the part of Amoskeag Industries must be

⁷ This information has been adapted from inspectors' reports to the Minimum Wage Division of the New Hampshire Bureau of Labor.

considered as disappointing. It cannot be disputed that the volume of new employment was a small fraction of the volume lost by the closing of the Amoskeag mills; or that little advance had been made toward the diversification of the city's industry and what advance had been made was with companies paying wages no better, some a little worse, than the textile industry - traditionally a low-wage industry.

CONCLUDING CONSIDERATIONS

Efforts to create the belief that prosperity once more prevailed in Manchester had been carried to such lengths that southern textile manufacturers cited to their Congressional representatives the alleged prosperity of Manchester as evidence of the equitable operation of the wage differentials then extant and being considered in the Fair Labor Standards Act. So successful was the Manchester Chamber of Commerce in broadcasting this notion that it received letters from workers in many parts of the country asking for employment in the belief that the local labor supply had been exhausted. Indeed, one such inquiry came from a textile worker in Manchester, England, and this at a time when upwards of 10,000 persons or families in New Hampshire's Queen City were dependent on public relief.

The realization of the following facts, however, must have had a sobering influence upon Amoskeag Industries. From August 1937 to September 1938 only 6 new companies employing 4 or more, with an aggregate employment of about 150, located in the Amoskeag yard as compared with the location of 14 companies in the preceding 8 months with a peak employment of 3,100 persons in July 1937. That is, the rate of increase in new employers was very appreciably slackened. To aggravate the situation, there was the withdrawal of the largest employing unit, Pacific Mills. It was clear to the Industries by the fall of 1938 that it could not rely on new employers to start operations of their own in the mill yard; with upwards of 3,000,000 square feet of mill space still available and with expenses of \$1,000 a day, largely for taxes and interest, the company decided that it must take the initiative in organizing new industries.

Among the disappointments was the failure of anyone to operate Amoskeag's worsted section. As has been shown in

chapter III, the worsted section had made a profit over its last decade under Amoskeag management, and it could very well have remained a going concern. For this reason it was expected that someone would resume operations of this unit even after a lapse of a year. However, no one with the requisite combination of capital and courage came forward. That courage was required may be inferred from the fact that during the period under consideration the price of raw wool was rising, while the price of finished goods remained about constant. Amoskeag Industries was unwilling to assume direct responsibilities because by the very nature of the process, and especially in view of the rise in price of wool, the number employed per dollar of investment would be small.

Consequently, when it became imperative in the late fall of 1938 to organize new enterprises, Amoskeag Industries established three companies, each of modest proportions. Only one was planned to manufacture worsted grey goods; one was to produce spun rayons; and the third was to spin mohair yarn. All three were largely financed by the Industries through stock subscription. A fourth company promoted by out-of-town interests arranged to purchase some of Amoskeag's finishing equipment and to establish a unit in the mill yard for finishing lining cloth used in the manufacture of shoes. All four expected to go into production sometime during the winter of 1938-39 and hoped to achieve eventually an aggregate employment of 500 to 600 workers.

The effect of the operation of Amoskeag Industries upon Manchester's volume of unemployment may be best summarized by considering the numbers registered with the Manchester office of the New Hampshire Employment Service. The number in the active file of this office would reflect, of course, more than the activities of Amoskeag Industries. For example, employment fluctuations in the shoe industry also would be represented there. Nevertheless it is not without interest that the monthly average of the number registered in 1937 was 7,555 compared with 10,873 in the preceding year, before any of the new companies had really started up. Although this represented a decline of 30 percent in the number seeking employment, it meant that 22 percent of the city's gainfully occupied population was still seeking employment through the State

Employment Service. In the first 10 months of the very next year, 1938, however, for the reasons already related, the average number registered was 10,820, equal to the number in 1936. Once more about one-third of the gainfully occupied population was actively seeking work.

CHAPTER VI

SUMMARY AND CONCLUSIONS

SUMMARY

The basic questions to which this inquiry has been directed were stated at the outset as: What are the more important considerations that transformed one of the first industrialized regions into one of the first "depressed areas" of an industrial character? What types of adjustment do workers make who are economically stranded in a depressed area, and what adjustments may they hope to make?

The major answer to the first question was given in terms of excess productive capacity resulting initially from the establishment of new textile factories in considerable number in the South. These had been established by local entrepreneurs to take advantage of cheap labor at a time that coincided with the introduction of the automatic loom. As a consequence, the new productive capacity was an addition to rather than a replacement of the older machinery. The World War demands upon the industry served to conceal this excess capacity at the very time that large profits derived from wartime operations provided the basis for further expansion of the industry in subsequent years. Added impetus to the southward shift of the industry in pursuit of low labor costs came from the virtual cessation with the World War of the influx of cheap immigrant labor into New England. Since cheap labor no longer came to the industry, the industry moved to the cheap labor.

Nor could this major maladjustment in the cotton-textile industry be mitigated by an expansion of markets. In the face of the increased competitive strength of substitute textile fibers, cotton could manage only to retain its relative share of the textile market. Even this could be accomplished only by manufacturing to an increasing degree for the producer-goods industry and by catering to the consumer-goods industry through increased attention to the style factor. Both policies tended to impart additional instability to manufacturing operations and additional risks to profit making.

Against these industry-wide difficulties the New England mills in general and the Amoskeag mills in particular attempted to compete despite the handicaps under which they operated. The latter may be summarized as obsolescence of machinery, of mill management, and of marketing organization. In addition, the very size of Amoskeag greatly increased its inflexibility in meeting changed market conditions. As this report has attempted to show, as soon as Amoskeag's competitive position was recognized as marginal, the major owners withdrew capital funds from the Company in a series of financial reorganizations, and eventually they liquidated the concern.

The social consequences of the shut-down can be measured in terms of widespread unemployment of a relatively long duration and dependency upon emergency Government employment and general relief. In a sample of more than a thousand Amoskeag workers made idle by the shut-down in 1935, only two-fifths of the men and one-fifth of the women were able to find some private employment within the 22 months following loss of job at the time of the closing of the mills but before the location of new companies in the Amoskeag yard.

Most of the new companies attracted to this location started operations in the first 6 months of 1937, and at peak operations in the summer of that year employed more than 3,100 workers. In the subsequent recession about half this number lost their jobs. During the week of maximum employment in 1935, Amoskeag had provided work for 11,014. Thus the types of adjustment available to those economically stranded in the depressed area have been limited reemployment in Manchester and adjoining communities, restricted emigration, and, as was usually the case, dependency upon some form of governmental assistance.

Manchester's economic prospects depend obviously on the establishment of new companies and the expansion of industries already operating in Manchester. The latter are now confined mainly to the boot and shoe industry. Accordingly, the problem of Manchester, as of other stranded textile centers, may be considered in terms of the economics of industrial location.

GENERAL LOCATIONAL CONSIDERATIONS

The highly specialized character of the locational factors which attracted new industries to the Amoskeag yard becomes

evident when they are viewed in the light of general locational considerations. It should be clear that industries which are oriented toward raw materials will not be attracted to Manchester for the simple reason that the Manchester area has virtually no raw materials, organic or inorganic. A possible exception to this are the forests in the northern end of the State and in nearby Canada that have provided the basis for Manchester's woodworking factories. Since, however, woodworking industries in general have been declining for more than a decade, one would not look for any appreciable expansion of the industry in the Manchester area, especially since the nearest forests are not very extensive.

Nor is Manchester so situated that it would have any special attraction for industries that should be oriented toward markets, and again for a simple reason. Although Manchester is probably a good distribution center for northern New England, this market, whether for consumers' or producers' goods, is in itself too small to support industries of any appreciable size. Although Manchester is only about 56 miles from Boston, a major marketing area, from the viewpoint of transportation costs a plant location in the southern part of New England is preferable; such a location would enable a plant to tap the Boston market, that of southern New England, which has a considerably higher density than the northern section of the region, and that of the New York City-Philadelphia area, whereas a plant location in Manchester, in addition to the small market of the local area, would be as economical only for serving the market of the Boston area.

Moreover, to the natural transportation disadvantage due to distance from major markets there must be added the economic disadvantage of the low volume of traffic and its uneven distribution, that is, a larger volume of incoming freight than of outgoing freight. These considerations are especially important since they make for a high cost of living in an area such as Manchester that imports most of its food and fuel supplies.

There are communities, however, that have developed industrially despite distance from the major marketing areas and the absence of raw materials. Buffalo, New York, is a case in point. Communities of this type are usually located at natural "breaking points" along important through routes.

Since this involves the necessity of rehandling, it becomes economical to "mill in transit." But Manchester, situated as it is off in the northeastern corner, obviously cannot claim any such advantage.

On this showing, if capital and labor were perfectly mobile, there would have located at Manchester only market-oriented factories that could be supported by the northern New England market.¹ With dependence solely upon this market Manchester could not have developed into a city of its present size. Since, however, capital and labor are not perfectly mobile, Manchester may be the locus of relatively low total costs for certain industries that do serve a wide market, despite the aforementioned locational disadvantages. This can only mean that the combined costs of capital and labor are so much cheaper here than in alternative localities as to offset at least other locational disadvantages in its geographic situation.

One would not expect low-cost capital to be necessarily inherent in Manchester's location. To the extent to which it exists, it is due entirely to the accident of the liquidation of Amoskeag. The latter made available at liquidation prices more or less unspecialized loft space and cotton and worsted textile machinery. From a survey of the new companies that located in the Amoskeag mills in 1937 and 1938, the most potent factor conditioning location was the low cost of capital equipment and plant, the former being the more influential of the two. A pertinent query, then, is the degree of permanency of this locational influence.

With the exception of the rayon plant, all the other new textile establishments started operations in Amoskeag because of the availability of second-hand machinery at a low price, coupled with the desire on the part of several of the companies to expand production. Accordingly, as the textile machinery is disposed of, Manchester has that much less locational attraction for other textile establishments. By the end of 1938 there remained insufficient cotton machinery to equip economically a unit of any appreciable size, although sufficient machinery remained to equip a worsted unit of moderate size. Moreover, Amoskeag's specialized equipment, such as the

¹Of course, these considerations apply only after technological progress had freed manufacturing development from the influence of water power at the site.

foundry, dyeing equipment, and part of the finishing equipment, by that time was already being utilized. Thus within 2 years the attractive force of low capital costs seems to have spent itself, despite the fact that more than 3,000,000 square feet of mill space at modest rentals was still unoccupied. The latter, however, could scarcely be considered an advantage peculiar to Manchester; for urban New England, at least, it probably approaches an ubiquity in view of the extensive liquidation of textile companies that occurred throughout most of the region.

If our analysis thus far is valid, the establishment of new companies in Manchester after 1938 must depend largely upon the existence of relatively low labor costs compared with alternative locations. This would not result from the possibility of drawing upon unemployed workers who are highly skilled, for the skills that prevail in Manchester are those used in the textile and shoe industries. In neither case do the tasks require highly developed skills as evidenced by the fact that both industries in recent years have been transplanted into rural areas and made to flourish in a short time. Accordingly, Manchester would hold no attraction for industries that must be manned by highly skilled workers such as machinists, for example.

To the extent, then, that labor-oriented industries would locate there, it would be those in which labor costs are a high percentage of total costs owing to considerable processing by semiskilled and unskilled operatives. Industries of that description include textile manufactures, knit goods, shirts, clothing, leather and its manufactures, and assorted articles used in the novelty trade. Most of these are among the traditionally "sweated" industries. This would also include any industry making use of women on an assembly line, such as the manufacture of the electrical-coil precision instruments counted among the new establishments located in the Amoskeag mills. Such enterprises are also characterized by the fact that they can be housed in mill buildings of general design and that the total transportation costs of their product are a small fraction of the wholesale price - important considerations for an industry if it is to operate successfully in an area such as Manchester.

If, then, the controlling locational attraction is to be relatively low labor costs, it is pertinent to inquire whether the money wages to be paid will merely equalize real wages of the Manchester workers with the real wages paid in alternative locations or whether this would make for inequality of real wages, with the lower wages in Manchester. While it is money wages that are figured in business costs and hence influence location, the economic welfare of the workers depends upon real wages. Consequently, to answer our query, reference must be made to comparative cost-of-living data.

A survey of the cost of living in 59 cities, made as of March 1935,² was based on a budget of uniform specifications for a four-person manual worker's family at a maintenance level. Five New England cities varying in population from 70,000 to 250,000 were included in the survey. The cost of living in three of these cities, Bridgeport, Portland, and Fall River, exceeded that in Manchester, while in Providence the cost of living was the lowest. The maximum difference was only \$51.00 per year, and the difference between Manchester and Fall River, communities that may be taken to represent competing localities in the northern and southern sections of the region, respectively, was only \$17.00, or 1.4 percent of \$1,271.51, the total cost in Fall River.³ The major difference was in the cost of housing, largely owing to the fact that the rentals in the 700 tenements owned by Amoskeag were about one-half the market rentals. Even the increased rentals that came into effect with their transfer to Amoskeag Industries in August 1936 were still below the market rentals. From these results it follows that if Manchester workers accept wages much below the going rate for the given industry or industries in other cities of the region, it will involve a lowering of their standard of living. According to the above analysis, it is primarily on this basis that Manchester will be able to attract new enterprises.⁴

²Margaret Loomis Stecker, *Intercity Differences in Costs of Living In March 1935, 59 Cities* (Works Progress Administration, Division of Social Research, Research Monograph No. XII, 1937).

³*Ibid.*, pp. 158-9.

⁴Interregional comparisons upon the basis of this cost-of-living survey are difficult because size of city affects cost, especially housing and transportation, and the composition of the regions in terms of size of cities surveyed varies considerably from region to region. With respect to certain items such as food and fuel, however, size alone would have little effect upon costs. Variations in cost of these items would depend mainly on differences in transportation cost. Since New England must import most of its food and fuel supplies from other regions, it is not surprising that in this survey the cost of food and fuel [Com.]

To attract industries through lower wages in the fall of 1938 was not as easy as in earlier years. Since the National Labor Relations Board has ruled that it is an unfair labor practice to divert production from a union factory to a nonunion factory, the precarious employment that might be provided by "run-away" companies was greatly reduced. Moreover, the Fair Labor Standards Act tends to reduce the size of the wage differentials that Manchester employers could conceivably offer. To the same effect is the general occupational shift away from mill jobs and the continuous decline in the absolute numbers of persons in the most productive age groups. WPA employment probably also served to maintain the wage structure.

The locational considerations relating to new enterprises that have been discussed also apply to the expansion of concerns already located in Manchester. The problem may be reduced to a consideration of the possibilities of expansion in Manchester's boot and shoe industry. It would appear that in the near future the industry will not undergo any large expansion of productive capacity, and, accordingly, any absolute or relative expansion of the industry in the Manchester area would be at the expense of some other area. Indeed, the former had occurred between 1929 and 1935. That is, the average employment between these years increased 3.4 percent in the boot and shoe industry of New Hampshire, which is all but exclusively located in the tier of three lower counties, Hillsborough (which contains Manchester), Rockingham, and Stafford, while average employment in the entire industry declined by 1.7 percent over the same period. The latter occurred between 1935 and 1937 when the biennial increase in employment in the entire industry was 6.8 percent compared with 17.8 percent in New Hampshire's share of the industry.⁴ And modest expansion in Manchester itself continued between 1935 and 1938 in the form of two established companies occupying Amoskeag's mills in order to add to production. This involved in the neighborhood of 500 workers. When one considers, however, that only two companies took advantage of the low-priced mill space that had been available for 3 years, one cannot expect any large-scale expansion of the

⁴ [Conn.] in New England was the highest of the nine regions. The cost of food in the New England cities was 103.5 percent of the average for all 59 cities, while the cost of fuel was 132.6 percent of the average. (*Ibid.*, p. 168.)

⁵ Percentages are based on figures adapted from the *Census of Manufactures* for 1929 and 1935 and preliminary census releases for 1937.

industry that will make a major contribution toward the solution of Manchester's unemployment problem. To the extent that any expansion will take place in the Manchester area, it will very probably depend on the differential resistance to unionization offered by the shoe companies in this area and those in Maine and Massachusetts.

EXPERIENCES OF THREE OTHER TEXTILE CITIES IN NEW ENGLAND

The conclusions with regard to recent industrial prospects of Manchester may be substantiated by an analysis of the extent and character of the industrial recovery that has occurred in other New England cities that were once important textile centers and which faced problems similar to Manchester's, but at an earlier date. More specifically, what has happened since 1929 in such cities as Fall River, New Bedford, and Lowell? Although no detailed survey is at hand, some of the available material bears on this question.⁶

The textile industry in these cities had undergone considerable decline in the years between 1923 and 1929. In New Bedford, for example, the average number employed declined by one-fifth, in Fall River by one-third, and in Lowell by two-thirds. The decline in average employment at Amoskeag over the same years was about one-tenth. That this entailed appreciable liquidation in Fall River and Lowell is suggested by the fact that in the former city the number of cotton-textile establishments was reduced from 47 to 34 and in the latter from 15 to 5. There was no change in the number of establishments reporting in New Bedford. Since in 1923 employment in cotton textiles accounted for more than 80 percent of all employment in manufacturing in Fall River and New Bedford and 47 percent of that in Lowell, it should be evident that the depressed state of this industry meant depressed cities. Consequently, the very problems that beset Manchester in 1935 confronted the Massachusetts cities in 1929.

The latter, in common with Manchester, had an abundant supply of mill space of general design and semiskilled and unskilled workers with textile experience, but lacked natural resources. For reasons previously set forth, the industries that would probably be attracted to these cities would be

⁶Data on employment and number of establishments in following paragraphs were adapted from the *Census of Manufactures and Annual Report: Year Ending November 30, 1937* of the Department of Labor and Industries of the Commonwealth of Massachusetts (Pub. Doc. 104, pp. 91, 100).

market-oriented consumer-goods industries in which labor costs constitute a relatively high percentage of total costs. It has also been explained that for such industries a location south of Boston was preferable to one north of that metropolitan area if other things are equal, which on our showing has been the case. According to this analysis, reemployment in Fall River and New Bedford should have proceeded further than in Lowell.

This is borne out in a comparison of the monthly average number of wage earners employed in manufactures other than cotton textiles for specified years. Between 1923 and 1929, a period of liquidation in the cotton-textile industry of those cities, the number of wage jobs in other manufactures increased 2.6 percent in Fall River and 6.2 percent in New Bedford but decreased 9.9 percent in Lowell. The difference in development is more striking if the period of revival after the great depression is compared with the volume of employment in 1929. Thus, between 1929 and 1936 wage jobs in industries other than cotton textiles had a rise of 36.2 percent in Fall River and more than doubled in New Bedford (an increase of 107.6 percent), while in Lowell the number remained practically stationary.⁷

Whether Manchester will share the fate of other New England textile towns located some distance from present marketing centers is not known. What is known is that a once prosperous manufacturing city has been left stranded by the decline and failure of its largest company. That this company was one of the largest textile mills in the world and had been in existence for over a hundred years is not without significance. Although many factors affected its decline, the most important was the withdrawal of needed capital funds at a critical point in the history of the company. The loss of employment opportunity for 11,000 or more workers created more social and economic problems than are visualized in the unemployment figures alone. This case study illustrates not only the problems of textile New England in decline but also indicates the broader problems consequent upon the migration of industry in the country as a whole.

⁷It is noteworthy that in New Bedford, for which there are some detailed statistics, the bulk of the reemployment was created by the silk and rayon industry - one that satisfies the specifications suggested by our analysis. Thus the wage jobs in manufactures other than cotton textiles numbered 13,136 in 1936, an increase of 6,807 over the 1929 figure. Of the total of 13,136 wage jobs, 5,793 were in the silk and rayon industry. In 1929 wage jobs in this industry for all of Bristol County, in which both New Bedford and Fall River are located, totaled 2,234.

APPENDIXES

Appendix	Page
A. THE EARLY LABOR SUPPLY AND WORKING CONDITIONS. . .	148
B. EMPLOYMENT CONDITIONS, 1911-22	172
C. EMPLOYMENT CONDITIONS, 1923-32	204
D. EMPLOYMENT CONDITIONS, 1933-35	248
E. EFFECT OF AMOSKEAG'S DECLINE ON EMPLOYMENT, EARNINGS, AND MIGRATION	265
F. SUPPLEMENTARY TABLES	312
G. THE COMPANY PERSONNEL AND INCOME-TAX RECORDS . . .	321
H. OCCUPATIONAL-HISTORY SCHEDULE AND DEFINITIONS OF IMPORTANT TERMS.	336
I. SOME EVIDENCE ON THE RELIABILITY OF AN EMPLOYMENT HISTORY BASED ON THE WORKER'S MEMORY.	339

APPENDIX A

THE EARLY LABOR SUPPLY AND WORKING CONDITIONS

This appendix attempts to provide a broad perspective for viewing Amoskeag's decline, which had its inception toward the end of the first decade of this century. This is given in terms of Amoskeag's early labor supply, the company's dependence on the flow of immigrant labor to this country, the effect of the cessation of immigration, and the shift of the cotton-textile industry to the South.

ORIGINAL LOCATIONAL FACTORS

The considerations that led to the early establishment of the cotton-textile industry in New England have been related so often that little more than a mere enumeration of the locational factors is required here. Among the more important ones were the abundant water power, the mobile capital accumulated from overseas trade, a labor supply resident on the marginal farms of the region, and the well-developed transportation and marketing facilities of a highly commercialized area. All these factors were present at the turn of the nineteenth century, but with the passage of the Non-Intercourse Act of 1809 and of the War of 1812, the conditions favorable to the development of manufactures became even more auspicious because of the pressure of capital which was being diverted from the shipping trade. The invention of the power loom at about the same time provided an additional stimulus.

The situation has been summarized in brief compass by Professor Samuel Eliot Morison:

The younger and more far-sighted men put their money and brains into making Massachusetts a manufacturing state. Embargo and war had acted as a prohibitive tariff on English manufactures; and just before the war ended two scions of shipping families, Francis C. Lowell and Patrick T. Jackson, prepared against peace by setting up power looms at Waltham [1813], in the first complete cotton factory. Against the will of the shipping community, they obtained a protective tariff in 1816; and within a generation the manufacturing cities of Lowell,

Lawrence, Chicopee, and Manchester, had been established by capital accumulated through neutral trading. Every country town with a good-sized brook or river set up a textile or paper mill or iron foundry; and a similar expansion in shoemaking altered the economy of fishing villages. The center of interest in Massachusetts shifts from wharf to waterfall; by 1840 she had become predominantly a manufacturing state.¹

THE WALTHAM MODEL

The new technology in the form of the power loom and the entrance of the financier and merchant prince into the promotion of manufactures did more than accentuate the shift in economic enterprise; they provided also a new pattern for manufacturing activity. There was still the dependence on the rivers for power and transportation, but in all other respects there was a thoroughgoing change. Formerly, "[the] mills were, one and all, controlled by men intent upon the process of production, spinners and mechanics at heart, whose business was the making of cotton thread or cloth."²

After the war, the development of the industry was

taken up by men with the best business imagination in the land, unhampered by its traditions, concerned with making fortunes and building states, not with manufacturing cotton cloth.

.....

These men relied not on their technical knowledge of production but on business organization, executive capacity, and their ability to lure the best talent in every field. This fact in itself was one reason for their success, for it left them unconcerned with detail and free to organize and plan, to finance their companies, market their product, and consider the social as well as the productive problem involved in their hiring of labor.³

The availability of larger amounts of capital and the advent of the power loom combined also to alter the structure of the productive organization. Formerly a given stage in production, such as spinning, composed the productive unit. In the newer

¹*The Maritime History of Massachusetts, 1783-1860* (Boston, Mass.: Houghton Mifflin Co., 1921), pp. 213-4. See also Victor S. Clark, *History of Manufactures in the United States, 1807-1880* (Washington, D. C.: The Carnegie Institution of Washington, 1916), p. 645.

²Caroline F. Ware, *The Early New England Cotton Manufacture* (Boston, Mass.: Houghton Mifflin Co., 1931), p. 60.

³*Ibid.*, pp. 61-2.

companies, wherever the Waltham model was followed, as in Manchester,

the unit of organization [was] changed from the small yarn mill to the large, all-process factory.

The tendency to unite all processes in the same plant was carried even beyond the actual manufacture of cloth. Mills had their own machine shops, their own bleaching and dyeing departments, and, when calico printing became common, their own print shops. Although all these processes were also carried on by independently organized concerns, they were now commonly included in the activities of the typically American large factory which bought the raw cotton and sold the finished cloth.⁴

These changes meant, too, that the factory plant was no longer limited in size to supplying yarn to the weavers resident in the neighborhood. To be freed from dependence on this artisan group, it was necessary to wait upon the introduction of the power loom and integrated mill operations. The resulting transformation in its effects on the labor supply and policy was as radical as was the transformation in the organizational unit.

Child labor had operated all the early mills. The new factories were run almost entirely by women and girls. In contrast to the spinning and carding machines which could be tended by children, and the hand looms which were largely worked by men, power looms could be best operated by women and girls who ranged in most factories from eighteen to twenty-two years of age. . . . Once these girls had been brought into the factory, they were tried out on the carding and spinning machinery and found so satisfactory that they were soon employed throughout the plant.⁵

To combat the prejudice against factory employment prevalent among the rural population, as well as "to avoid making a permanent mill village of poor families whose children worked in the mill and who were entirely dependent on factory labor", those who originated the Waltham model "devised a scheme of company boarding houses, supervised by competent matrons, where the girls lived under regulations strict enough to satisfy even the puritan Yankee farmers."⁶

⁴*Ibid.*, pp. 63-4.

⁵*Ibid.*, p. 64.

⁶*Ibid.*, pp. 64-6.

Even the type of product and the method of marketing were not immune from the sweeping changes of the period.

The old mills had had their yarn woven into stripes and plaids which required more or less skill in weaving and which varied in fineness and fashion. The Waltham company started producing plain, coarse, white sheeting made from number fourteen yarn which the power loom could turn out easily and which could be used for almost all purposes, especially by the western pioneers. . . . It lent itself to mass production as the more varied output of the earlier mills had not.⁷

Moreover,

instead of selling to a variety of small jobbers or commission merchants scattered all over the country, a practice which the old mills found both expensive and risky, the Waltham company disposed of its entire product through one agent who received a commission of only one per cent and was wholly responsible for marketing the mill's output.⁸

What occurred in Waltham and later in Lowell and Nashua also came to pass in Manchester beginning with the organization of the Amoskeag Manufacturing Company in 1831; nor was the organization of the latter by any means the end of the process. The high profits of the formative years provided the basis and incentive for a continuous repetition of the Waltham experiment until 1846 with only short-lived interruptions. In that year "the cotton industry . . . may be said to have reached a peak. Dividends had never been so high, expansion never so rapid as in the years 1844-46."⁹

From about that date further expansion created a highly competitive situation which could only result in the narrowing of mill margins. Thus,

only huge sales could bring profits, and the very size of these sales in turn increased competition and forced the price lower still. The decline in cloth prices was practically constant from 1820 on, except for a slight recovery in the fifties from the bottom prices of the late forties. It responded very slightly to fluctuations in the general price level and at times diverged conspicuously from the price of cotton. This decline was not forced by

⁷*Ibid.*, p. 65.

⁸*Ibid.*, p. 66.

⁹*Ibid.*, p. 108.

the competition of foreign goods or of substitute products but simply by the crowding of the industry from the inside. It was most conspicuous in those staple American "domestics" that were never imported from abroad. It occurred, moreover, in years of business prosperity and was not the result of a general price slump.¹⁰

In such circumstances there would be a strong pressure to reduce costs, primarily labor costs since these constituted then as now about half of the value added by manufacture, despite the advanced degree of mechanization of the process. Survival and expansion therefore came to depend in large part upon the continuous availability of a cheap labor supply. How this was typically accomplished can be related in terms of the changing composition of Amoskeag's labor supply.

THE NATIVE LABOR SUPPLY

In keeping with the Waltham model, Amoskeag's first supply of workers was recruited from the native stock, chiefly the daughters of neighboring Yankee farmers who had not already been induced to work in the mills lower down in the Merrimack Valley. The promise of some cash wages to barter-ridden farm families toiling in stony fields must have served as the main inducement, as had been the case with the Lowell operatives. One of these, Mrs. Harriet H. Robinson, in her later years drew upon her first-hand observations to describe the conditions and motives that underlay this migration from the farms to the boarding houses of the mill villages. Mrs. Robinson's introduction to mill life coincided with the very beginnings of Amoskeag.

In 1832 [she writes], Lowell was little more than a factory village. Five "corporations" were started, and the cotton mills belonging to them were building. Help was in great demand and stories were told all over the country of the new factory place, and the high wages that were offered to all classes of work-people; stories that reached the ears of mechanics' and farmers' sons and gave new life to lonely and dependent women in distant towns and farm-houses. Into this Yankee El Dorado these needy people began to pour by the various modes of travel known to those slow old days. The stagecoach and the canal-boat came every day, always filled with new recruits

¹⁰ *Ibid.*, pp. 110-1.

for the army of useful people. The mechanic and machinist came, each with his home-made chest of tools and his wife and little ones. The widow came with her little flock and her scanty housekeeping goods to open a boarding-house or variety store, and so provided a home for her fatherless children. Troops of young girls came from different parts of New England, and from Canada, and men were employed to collect them at so much a head, and deliver them at the factories.

Some of these were daughters of professional men or teachers, whose mothers, left widows, were struggling to maintain the younger children. A few were the daughters of persons in reduced circumstances, who had left home "on a visit" to send their wages surreptitiously in aid of the family purse. And some were the granddaughters of patriots who had fought at Bunker Hill, and had lost the family means in the war for independence. There were others who seemed to have mysterious antecedents, and to be hiding from something; and strange and distinguished looking men and women sometimes came to call upon them. Many farmers' daughters came to earn money to complete their wedding outfit, or buy the bride's share of housekeeping articles.

.....

..... At first only a few came; others followed, and in a short time the prejudice against factory labor wore away, and the Lowell mills became filled with blooming and energetic New England women.

..... In 1843 over one-half of the depositors in the Lowell Institution for Savings were mill-girls, and over one-third of the whole sum deposited belonged to them, - in round numbers, \$101,992. It is easy to see how much good such a sum as this would do in a rural community where money, as a means of exchange, had been scarce. Into the barren homes many of them had left, it went like a quiet stream, carrying with it beauty and refreshment. The mortgage was lifted from the homestead; the farmhouse was painted; the barn rebuilt; modern improvements were introduced into the mother's kitchen, and books and newspapers began to ornament the sitting-room table.

Young men and women who had spent their two or three years of probation in the Lowell mills, often returned to the old place, bought land, built their modest houses, and became new and prosperous heads of families. Some of the mill-girls helped maintain widowed mothers, or drunken, incompetent, or invalid fathers. Many of them educated the younger children of the family and young men were sent to college

with the money furnished by the untiring industry of their women relatives.¹¹

IMMIGRATION BEFORE THE CIVIL WAR

If one of the early Amoskeag operatives had been given to writing her reminiscences of that period, it is reasonable to assume that it would have been in a vein similar to Mrs. Robinson's; nor is it unreasonable to assume that the alleged idyllic character of the early factory scene endured no longer in Manchester than in Lowell.¹² It was dispelled by the developments related above which tended to force down wages to a level that no longer exerted a strong attractive pull among the Yankee farm families. Yet so high was the labor turn-over among the native group that it was continually necessary to attract new workers to the mill; these were to be found among the English and Irish immigrants who, accustomed to a lower standard of living, considered the reduced wage rate acceptable.¹³ Thus within less than a score of years after the organization of Amoskeag, the native sons and daughters developed a reluctance to subject themselves to the factory discipline on terms that were coming to be set more and more by the new immigrants to Manchester from the British Isles.

By 1850, for example, some 8,800 persons born in Ireland were enumerated in the State of New Hampshire by the census of that year, while those from England numbered 1,469 and immigrants

¹¹The excerpts quoted were taken from Mrs. Robinson's article, "Early factory Labor in New England," *Fourteenth Annual Report: 1883* (Bur. Statistics of Labor, Commonwealth of Massachusetts, 1883), pp. 380-1, 386-7. (She included this article in her book, *Loom and Spindle or Life Among the Early Mill Girls* [New York: Thomas Y. Crowell & Co., 1898].) She concludes her description with the caution that "undoubtedly there must have been another side of this picture, but I give the side I knew best - the bright side!"

The other side, the side that Harriet Martineau and Charles Dickens also failed to see, is discussed by Norman Ware, *The Industrial Worker, 1840-1860* (Boston, Mass.: Houghton Mifflin Co., 1924), pp. 71-124. Professor Ware's position on the particular point raised may be summarized by the following excerpt (p. 72): "The basis of the Waltham system was the company boarding-house, where the girls were required to be in at 10 P.M. and generally to live under the somewhat fictitious supervision of the boarding-house keeper. Upon this basis was erected a puritanical paternalism originally intended for the welfare of the girls, but capable - in the hands of agents less high-principled than the early mill-owners - of being turned into a very effective and harmful despotism. In addition to the boarding-houses, the Waltham system involved the payment of wages in cash, the 'moral police' or community censorship of morals, the requirement that the girls should attend church, discharge for immoral conduct, and a thorough understanding among the corporations as to wages, hours, and the 'blacklist.'"

¹²With respect to the quality of housing provided by the Amoskeag boarding houses and tenements, the opinion of Lewis Mumford is worth noting: "[The] . . . depression of living quarters was well-nigh universal among the workers in the new industrial towns, once the paleotechnic regime was fully established. Local conditions sometimes permitted an escape from the extremes of foulness I have been describing: the housing of the millworkers at Manchester, New Hampshire, were for example of a better order. . . ." *The Culture of Cities* (New York: Harcourt, Brace and Co., 1938), pp. 166-7.

¹³The reduction of wage rates is discussed in N. Ware, *op. cit.*, pp. 106-24.

from British America (Canada) numbered 2,501. By 1860, when the United States Bureau of the Census for the first time presented nativity figures for Manchester's population, the foreign-born numbered 5,480 persons, or 27 percent of the total population of 20,107.¹⁴ There were 3,976 persons from Ireland, 800 from British America, 395 from England, and 153 from Scotland. The English and the Scotch very probably had had previous industrial experience, but the others came from rural areas. Many of the Irish were those who performed the heavy labor in the construction of the country's canals, mill buildings, and railroads. A lack of industrial experience, however, has not been a serious handicap in an industry such as textiles where the bulk of the jobs has been semiskilled, requiring only a short training period.

IMMIGRATION FROM 1860 TO 1890

French-Canadian Immigration

The Civil War could have had the effect only of intensifying this dependence of the mills upon immigrant labor because of the drafting of the native population for military purposes. It was toward the close of these years that the New England mills encouraged French-Canadian immigration in earnest. Most historians of this migration, following P. Hamon, distinguish three groups of immigrants: temporary immigrants, a group composed of indebted farmers who went sometimes for one or several seasons, sometimes for several years, to work in the American factories and to return with some small savings; casual immigrants who worked in one city after another according to their caprice and opportunities for employment and did not settle anywhere; and finally the permanent immigrants, much the largest group, composed of those who might or might not have been once among the other two groups and who disposed of their property and left with their families for the United States without any intention of returning.¹⁵

A classification of this sort, however, fails to indicate that much of this exodus had not been initiated by the immigrants but rather had been deliberately and directly stimulated

¹⁴Between 1840 and 1860 there was more than a sixfold increase in Manchester's population - from 3,235 to 20,107.

¹⁵Adapted from Georges Langlois, *Histoire de la population canadienne-française* (Montreal, Canada: Documents historiques, Éditions Albert Levesque, 1934), p. 173. (Authors' translation.)

by others. Thus one of their compatriots in his *Histoire de la presse franco-américaine et des Canadiens-Français aux Etats-Unis* contended:

It is necessary to place responsibility for the departure of a great number of Canadian families in large measure upon the Canadian agents of the American manufacturing companies. These paid recruiters overran the countryside of the districts of Montreal and Quebec even up to the lower reaches of the river, and by alluring promises troubled the spirit of these peaceable children of the soil who lived if not in luxury, at least in modest ease and contentment.¹⁶

Under such circumstances many of the migrants must have experienced keen disappointment. Certainly this was the opinion, possibly somewhat oversentimentalized, of Alexandre Belisle, who for many years had been professionally connected with *Le Travailleur*, a French-language newspaper published in Worcester, Massachusetts, and widely circulated in New England. In the *Histoire* cited above he comments:

What a sad business was that of the recruiters; how many cruel deceptions were experienced by thousands of those who let themselves be taken in by those beautiful promises and yielded to temptation. How many times we have seen these poor exiles weep because they missed their native country where they used to live modestly but with little money

These poor people have not been, as so many others, under the necessity of expatriating themselves. After having sold, often for a pittance, all their belongings in order to pay for the expenses of transportation and of settling in a foreign place, these families generally found themselves poorer than before and the bread of exile often appeared more bitter than they had known in the better days on the land that they had had the foolishness to abandon. These people, however, would end up by acclimating themselves in time; the children would grow up and lend their assistance to support the common household. The Canadian parish, implanted in a foreign land, in the privileged places where this blessing existed, would recall that of the native country and would greatly contribute to reconciling the new arrivals to the new conditions of life. In this manner these families that had thought of returning to the country as soon as they had saved up enough money often lost all idea of returning. Moreover,

¹⁶Alexandre Belisle (Worcester, Mass.: *L'Opinion publique*, 1911), p. 8. (Authors' translation.)

the children having grown up in city surroundings found repugnant the idea of returning to the Canadian land as farmers, an occupation for which they had no aptitude after their contact with industrial life.¹⁷

Despite disappointments and misgivings, the stream of immigration from French Canada was a steady one for many decades. While the immigrants soon discovered that New England was not a land of gold, the hard fact remained that it was a land of cash wages which were conspicuously absent in the rural Canadian scene. To this real economic advantage must be added the constant recruiting by agents - a factor of no little importance in feeding the stream of migration. Some fragmentary evidence on this score has come to our attention. Thus, to quote Belisle once more,

during the last week of April 1869, the trains passing by St. Albans from Canada transported 2,300 Canadian emigrants. The Americans went to Canada to engage workers and on May 3 a train brought back about 600 of them "in locked coaches in order to avoid any confusion and to make desertion impossible."¹⁸

Obviously, since this was good business for the railroads, it is not surprising to find that they also served as agents. To this effect is the testimony of the editor of *Le Travailleur* before the chief of the Bureau of Labor Statistics of the Commonwealth of Massachusetts in 1881. He stated:

I have a letter from an agent of the Boston and Albany Railroad at Worcester, who says he is ready to testify that since two years, no less than one hundred superintendents or agents of mills have applied to him for French help, one mill asking for as many as fifty families at a time. And Mr. E. I. L'Hérault, justice of the peace at Fall River, could testify in the same manner.¹⁹

Whether or not Amoskeag followed the general practice of the region by engaging recruiting agents is not known. If it did deviate from the usual procedure, it would probably have been because its favored geographic position obviated the necessity. Manchester was the nearest large industrial town along the railroad route between Montreal and Boston, and it was only natural that, once the exodus from Canada began, many would

¹⁷*Ibid.*, pp. 8-9. (Authors' translation.)

¹⁸*Ibid.*, pp. 63-4. (Authors' translation.)

¹⁹"The Canadian French in New England," *Thirteenth Annual Report: 1882* (Bur. Statistics of Labor, Commonwealth of Massachusetts, 1882), p. 17.

stop off in Manchester. French-Canadian immigration began in considerable numbers about 1865, and on May 20, 1869, *La Voix du peuple* counted 1,500 compatriots in Manchester. Two years later 2,500 French Canadians joined together to form the first Catholic parish in Manchester, and in 1882 *L'Echo des Canadiens* estimated Manchester's French-Canadian population at 9,000.²⁰ The United States census of 1890 reported 12,391 French Canadians in Manchester; they represented 28.1 percent of the total population.

Their rate of increase in other New England textile towns was nearly as high as in Manchester. Their crowding into the mills in such large numbers was bound to create hard feelings among the populace at large. On one occasion at least, these feelings of ill will found their way into an official document.²¹ Most observers have agreed that the French Canadians did constitute unusually docile and indefatigable workers.²² One of their compatriots has recently written to the same effect. "Certain companies," he observed, "saw in the Quebec type a conscientious worker, able, asking for little, not

²⁰See Wilfred Lessard, *Paroisse Sainte-Marie, Manchester, N. H.* (Manchester, N. H.: 1931), p. 97. This history of the parish is available at the library of the Canadian-American Association, Manchester, New Hampshire.

²¹"Uniform Hours of Labor," *Twelfth Annual Report: 1881* (Bur. Statistics of Labor, Commonwealth of Massachusetts, 1881), pp. 323, 469-70, and *passim*.

²²The appraisal of Elin L. Anderson, although her remarks are based on her researches in Burlington, Vermont, applies to most New England mill cities.

"Their migration [she writes] has been a 'peaceful penetration' across an imaginary line; indeed, at first their migration was largely seasonal. Some Burlingtonians still recall the trainloads of French Canadians, through with their work on the farms, who would arrive each fall to work in the lumber yards and mills and after staying for a short season to earn, as they said, some of the gold and silver that America had to offer, would return to their poor Canadian farms. On the farms of Quebec, as in Europe, 'The States' was pictured as a land with streets of gold. Gradually they began to lengthen their stay here from one season to two, from two seasons to three; then they came for a period of two or three years, until they settled permanently. When they did, it was not so much like settling in a new land as extending the boundaries of the old. The tie with Canada has always remained strong, partly because the short distance to the home land makes close contact possible, partly because the continued migration without restriction of French Canadians has constantly reenforced the Canadian national spirit.

"Although they are French, they differ markedly from the Frenchman of today and are, in habit of thought and behavior, more closely akin to his forebears. They have been separated from France for over 170 years and have known nothing of the great liberalizing movements, such as the French Revolution, the great literary revolution, and other upheavals which have so greatly influenced modern France. Their way of life in Canada has therefore remained essentially that of a simple peasant folk whose most vital cultural element has been their religion; as in any primitive society, the forms of that religion govern every aspect of their lives. This circumstance has made far more for docility and obedience to rules than it has for the quality of individual enterprise and responsibility considered characteristic of America. They have willingly accepted the leadership of the parish priest as their forebears did two centuries ago. In the French-Canadian community around the cotton mill in Burlington, today, the priest is spiritual guide, lawyer, doctor, friend, and comforter, to his people. Such complete acceptance of a single cultural force has resulted, in the estimation of many students, in a lack of interest in other forms of development, a result manifested in the lack of schools and free libraries in French Canada." *We Americans* (Cambridge, Mass.: Harvard University Press, 1937), pp. 27-8.

caring to take up with fomenters of strikes and drawing a certain number after him."²³

The fact that these characteristics also made them useful as strikebreakers very likely explains part of the hostility of the other textile operatives toward the French Canadians. In the Fall River strike of 1878, for instance, they were employed as strikebreakers and earned the nickname of "knobstickers."²⁴

Thus, as the continued development of the textile industry in New England in the decades preceding the Civil War depended on the Irish and English immigrants, so in the post-Civil War decades it depended on the immigration of the French Canadians. The development of the railroad during those years extended the labor market of the cotton mills from rural New England to rural Quebec. For the more skilled jobs, however, the mills still relied upon the immigrants from northern Europe.

Northern-European Immigration

Many of the northern Europeans who finally settled in Manchester came originally as contract laborers in accordance with the Federal regulations laid down in "an act to encourage immigration" approved July 4, 1864. Amoskeag, for example, in October 1865 entered into an arrangement with the American Emigrant Company for the importation of English textile operatives; and between 1868 and 1870 Amoskeag brought over under contract several scores of Scottish weaving girls who had had experience on weaving checked and fancy ginghams. It was in this manner that Amoskeag established its reputation at an early date for beautiful, durable ginghams. The terms included in the following contract were those usually demanded by Amoskeag:

Glasgow 9th May 1868

This is to certify that I have entered into an engagement with Susan Cunnion to act as gingham or check weaver for the Amoskeag Company of Manchester, New Hampshire, United States of America, (Mr. E. A. Straw, Agent) for the period of twelve calendar

²³ Adolphe Robert, "Au New Hampshire," *Les Franco-Américains peints par eux-mêmes* (Montreal, Canada: Editions Albert Levesque, 1936), pp. 221-2.

²⁴ Hugo Adelard Dubuque, *Le Guide canadien-français de Fall River et notes historiques sur les Canadiens de Fall River* (Fall River, Mass.: E. U. & E. F. Lamoureux, 1888), p. 125.

months to commence and be computed from the fifteenth day of June proximo at the current rate of wages and hours of working in other factories producing a similar class of goods, guaranteeing regular work on full time for the period of the engagement.

I also agree to furnish a steerage passage-ticket by the Steam Ship "United Kingdom," hence for New York on the 27th day of May current, the cost of said ticket to be repaid to me here or to my order in America, by monthly installments in such sums as may be agreed on.

George Thomson²⁵

At about the same time the Stark Mill, located in the Amoskeag mill yard, arranged for the immigration of some Swedish and German operatives who later formed the nucleus of these nationalities in Manchester's population. The Irish continued to come to Manchester apparently without any special effort on the part of the mills.

**Nationality Composition of Manchester's Population
in 1890**

By 1890 the industrial demands of Manchester had made its population quite cosmopolitan in terms of nationality composition. The foreign-born constituted 45.5 percent of the total population of 44,126. As previously noted, the French Canadians represented the major concentration, the next largest being the Irish with 4,338. Minor concentrations varying from 600 to 1,000 were to be found among the German, English, Scottish, and Swedish peoples. This situation was not peculiar to Manchester, for much the same nationalities had taken up their residence in the other textile- and shoe-manufacturing cities of New England (table A-1).

Despite the fragmentary character of much of our evidence, enough has been presented to establish the point that even before the development of the textile industry in the cotton-growing States had gained momentum, the development of the industry in New England had been sustained chiefly by the availability of rural workers. At the outset it was the native Yankees, followed by the Irish and still later by the French Canadians, to mention only the more important ethnic groups.

²⁵From photostat on file in Amoskeag Room, Hamilton Smith Library, University of New Hampshire, Durham, New Hampshire.

**Table A-1.- DISTRIBUTION OF FOREIGN-BORN POPULATION
IN EIGHT NEW ENGLAND CITIES HAVING A POPULATION
OF 50,000 TO 125,000 IN 1930,
1890-1930^a**

Year and nationality	Brockton		Fall River		Lawrence		Lowell	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1890								
Total population	27,294	100.0	74,398	100.0	44,054	100.0	77,696	100.0
Total foreign-born	6,274	23.0	37,734	50.7	20,516	46.6	34,610	44.5
French Canadians ^b		5.8		20.3		10.1		20.3
Irish		8.9		12.3		17.5		16.2
Poles		0.1		0.1		0		0
Greeks		0		0		0		0
Italians		0.1		0.1		0.1		0.1
Other		8.1		17.9		18.9		7.9
1900								
Total population	40,063	100.0	104,863	100.0	62,559	100.0	94,989	100.0
Total foreign-born	9,484	23.7	50,042	47.7	28,577	45.7	40,974	43.1
French Canadians		1.3		19.2		11.2		15.4
Irish		6.7		7.0		11.3		12.8
Poles		0.8		0.5		0.7		0.5
Greeks		0.1		0.1		0.1		1.3
Italians		0.4		0.3		1.4		0.1
Other		14.4		20.6		21.0		13.0
1910								
Total population	56,876	100.0	119,295	100.0	85,892	100.0	106,294	100.0
Total foreign-born	15,425	27.1	50,874	42.6	41,319	48.1	43,457	40.9
French Canadians		1.6		12.8		9.0		11.6
Irish		5.1		4.4		6.9		9.4
Poles ^c		5.6		1.6		5.1		1.7
Greeks		0.3		0.1		0.2		3.6
Italians		1.7		0.9		7.8		0.2
Other		12.8		22.6		19.1		14.4
1920								
Total population	66,254	100.0	120,485	100.0	94,270	100.0	112,759	100.0
Total foreign-born	17,124	25.8	42,331	35.1	39,063	41.4	38,040	33.7
French Canadians		1.3		8.9		6.3		9.0
Irish		3.7		2.7		4.5		6.6
Poles		0.7		2.1		2.7		2.0
Greeks		0.7		0.1		0.4		3.3
Italians		2.8		0.8		9.0		0.4
Other		16.6		20.5		18.5		12.4
1930								
Total population	63,797	100.0	115,274	100.0	85,068	100.0	100,234	100.0
Total foreign-born	14,275	22.4	32,078	27.8	28,633	33.7	26,129	26.1
French Canadians		1.1		7.4		6.2		7.7
Irish		3.1		1.8		3.5		5.0
Poles		1.1		1.7		2.0		1.7
Greeks		0.6		0.1		0.2		1.9
Italians		3.0		0.7		7.7		0.3
Other		13.5		16.1		14.1		9.5

See footnotes at end of table.

**Table A-1.- DISTRIBUTION OF FOREIGN-BORN POPULATION
IN EIGHT NEW ENGLAND CITIES HAVING A POPULATION
OF 50,000 TO 125,000 IN 1930,
1890-1930^a - Continued**

Year and nationality	Lynn		New Bedford		Manchester		Pawtucket	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1890								
Total population	55,727	100.0	40,733	100.0	44,126	100.0	27,633	100.0
Total foreign-born	13,965	25.1	14,420	35.4	20,091	45.5	9,359	33.9
French Canadians ^b		10.5		10.0		28.1		5.5
Irish		9.8		7.3		9.9		14.0
Poles		0.1		0		0		0
Greeks		0		0		0		0
Italians		0.1		0.1		0		0.2
Other		4.6		18.0		7.5		14.2
1900								
Total population	68,513	100.0	62,442	100.0	56,987	100.0	39,231	100.0
Total foreign-born	17,742	25.9	25,529	40.9	24,257	42.6	13,027	33.4
French Canadians		1.9		13.7		23.6		6.1
Irish		7.7		4.8		7.4		9.9
Poles		0.4		0.6		0.7		0.1
Greeks		0.1		0.1		0.1		0
Italians		0.4		0.2		0.1		0.5
Other		15.4		21.5		10.7		16.8
1910								
Total population	89,336	100.0	96,652	100.0	70,063	100.0	51,622	100.0
Total foreign-born	27,344	30.6	42,625	44.1	29,692	42.4	17,956	34.9
French Canadians		2.6		12.7		19.6		8.5
Irish		5.8		3.9		5.0		6.7
Poles ^c		4.3		1.8		1.1		0.8
Greeks		1.1		0.2		1.9		0.5
Italians		1.5		1.2		0.1		1.4
Other		15.3		24.3		14.7		18.9
1920								
Total population	99,148	100.0	121,217	100.0	78,384	100.0	64,248	100.0
Total foreign-born	27,858	28.1	48,689	40.2	27,516	35.1	21,024	32.7
French Canadians		2.2		8.1		15.7		5.8
Irish		4.6		1.7		3.5		4.3
Poles		1.4		2.4		2.5		1.4
Greeks		1.7		0.5		3.8		0.4
Italians		1.9		0.5		0.2		1.6
Other		16.3		27.0		9.4		19.2
1930								
Total population	102,320	100.0	112,597	100.0	76,834	100.0	77,149	100.0
Total foreign-born	27,091	26.4	37,333	33.2	21,944	28.6	22,218	28.8
French Canadians		2.8		6.8		13.9		6.3
Irish		3.5		1.2		2.5		2.7
Poles		1.5		2.0		2.1		1.9
Greeks		1.4		0.3		2.1		0.3
Italians		2.0		0.5		0.2		1.4
Other		15.2		22.4		7.8		16.2

^aBased on U. S. Census of Population data.

^bIncludes all Canadians; break-down not given for this year.

^cFigures used are those given for Russians.

If the growth of the New England branch of the industry, even before southern competition became a factor, had come to depend on successive waves of immigrants, how much greater would this dependence become with the development of the industry in the South?

BEGINNINGS OF COTTON TEXTILES IN THE SOUTH

It was about this time, 1880-90, that the southern branch of the cotton-textile industry began to achieve importance. The considerations that had originally conditioned the location of the industry in New England had by that time lost their effect. The tremendous advance in the general industrialization of the country, along with the development and integration of the commercial and financial institutions, meant that the ever-increasing capital resources had more mobility than formerly. The building of the railroads, moreover, had freed manufactures from their dependence upon the rivers and streams for power and transportation. In view of these developments and the availability of a large local labor supply in the southern seaboard States, as well as the existence there of the minor requisites of a humid climate and soft water, it is clear that by the end of the century the New England States had only the advantage of an early start with respect to cotton textiles.

It was not, however, until some technological changes in the textile process had occurred that local entrepreneurs in the South Atlantic States were able to take advantage of the locational factors that had been altered in their favor. Thus in 1871 the Sawyer ring spindle and shortly thereafter the Rabbeth double-spinning ring spindle were perfected. Of more importance was the Draper automatic loom. The invention of the latter in 1895 occurred in

a period of "easy" money characterized by the intense interest of the financial markets in industrial promotions and consolidations. The result of the coincidence of these two factors, so far as the cotton textile industry was concerned, was the greatest expansion in its history, encouraged *primarily* by the prospect of high profits to be obtained in new mills equipped with the Draper automatic looms. Thus the installed spindles in the industry increased from 19,472,000 to 28,267,000 during the ten years 1900 to 1910, an increase of 45 per cent. Of this new

productive capacity, 70 per cent was in the South, where wage rates were lower than in New England.²⁶

The extent of the southward shift over those years is discussed in chapter II. Since the relative shift had proceeded at such a rapid rate and since it represented almost entirely a net addition to capacity, whereas demand increased at a lesser rate, the problem of excess capacity had become a very real one as early as the first decade of the twentieth century.²⁷

The competition from this newly industrialized area was not long in making an impression upon a few of the Amoskeag officials most intimately associated with the company's affairs. The potentialities and dangers of southern competition had certainly become a concern to T. Jefferson Coolidge, treasurer of the Amoskeag Manufacturing Company for many of the years between 1876 and 1898, according to the observations that he committed to his diary before the century was many years old. He noted:

"I lunched with a man named Smythe, who is at the head of the best mill in the South, I believe, in the Alleghany foothills in South Carolina. He owns the whole county, sees to the schooling of the children, and really regulates the expenditures and taxes. The employes in the mills are all white, belonging to that class of Scotch-Irish and highlanders who stood by us in the Civil War.

"They have never had an opportunity of earning money and a dollar looks very large. Besides, food, such as they are accustomed to - chicken, hog and hominy - is very cheap and the climate mild in the winter. They receive about 30 per cent less than our operatives in New Hampshire, whilst coal and cotton are cheaper.

"This competition must injure New England excessively and the only prospect of relief is that the profits of cotton manufacturing are so enormous that a vast number of mills will be erected and that will have a tendency to put up wages. Against that there are a million able-bodied and intelligent men in the Alleghanies which stretch nearly a thousand miles through North and South Carolina, Tennessee, Georgia, and Alabama, to supply the demand for labor."²⁸

²⁶Stephen J. Kennedy, *Profits and Losses in Textiles* (New York: Harper & Brothers, 1936), p. 8. (Italics in the original.)

²⁷For a discussion of this problem see chapter II.

²⁸Quoted by Marquis W. Childs, "Great Amoskeag Textile Corporation Quits Business With Tragic Results," *St. Louis Post-Dispatch*, August 2, 1936, part 8, p. 3J.

The same sentiments were expressed in 1905 by Mr. F. C. Dumaine who became a member of Amoskeag's board of directors in 1904 and treasurer in 1905 - a position he retained until liquidation was ordered. In the latter year the Legislature of New Hampshire was considering the enactment of a bill reducing the workweek from 60 hours to 58. Amoskeag attempted to bring about its defeat by having pressure brought on the local legislators from above. To this end Mr. Dumaine wrote to the Honorable J. H. Gallinger, United States Senator from New Hampshire, pointing out the difficulties of meeting southern competition. The letter follows:

February 3, 1905

The Honorable J. H. Gallinger
United States Senate
Washington, D. C.

My dear Senator Gallinger:

I understand a feeling has got abroad in New Hampshire that the mills in Manchester are not particular about the 60 hour bill, and that you among others had got the same impression.

I am taking the liberty to address you on this subject, to controvert that feeling in your mind, and to assure that the management of the mills are very strongly of the opinion that it would be a serious detriment to their interest if N. H. should adopt the 58 hour law.

You will remember, in my conversation with you yesterday, that I called to your attention the fact that within five years eight or ten of our large industrial concerns in Massachusetts have been obliged to reorganize, or shut up entirely. I feel strongly, and Mr. Coolidge agrees, that this is largely due to the excessive taxation, and increased hardships of the labor laws which Massachusetts has incorporated upon her books each year.

You know perfectly well of the growth of the mills in the Southern States, where the hours of labor are very much in excess of ours, to say nothing of the wages and cost of raw materials, and it seems to me that it behooves us all to do what we can to preserve in our State the industries that already exist there.

I understand that some of the leaders in N. H. are not as strong on this measure as might be wished for, because they have an idea you feel the same way, and I am writing this that you might say a word to correct that feeling if you feel so disposed.

Let me take this opportunity to thank you for the courtesies you have extended to me, and with kind regards, believe me,

Very sincerely yours,

(signed) F. C. Dumaine.²⁹

These opinions, moreover, had some basis in the facts of Amoskeag's operations, and the major effect of the locational shift upon the New England branch of the industry after 1890 was that of retarding its rate of expansion.

IMMIGRATION AFTER 1890

Between 1890 and 1910, that is, after the southern competition had become serious, the active spindleage in the New England States increased by about 50 percent compared with 100 percent in the preceding score of years and compared with a similar increase in the active spindleage of the United States as a whole between 1890 and 1910. Even the retarded rate of expansion in New England was conditioned mainly by its ability to compete with the South on the basis of a sustained flow of cheap immigrant labor. To the continued immigration of the French Canadians must be added the new immigrants from the southern and eastern countries of Europe. What happened to Amoskeag's labor supply during these 20 years appears to have been typical of other textile centers of the region.

Polish Immigration

By the late eighties many Polish people had settled in the textile towns of Massachusetts, but it was not until 1887 that the first Polish workers found their way to the textile towns of New Hampshire. The mills at Suncook, New Hampshire, seem to have been the first in the State to have employed Polish immigrants. Although Manchester is only about 10 miles south of Suncook, it was not until 1889 that the Polish colony heard of the large mills located there. In that year a young married couple moved from Suncook to Manchester to seek their fortune in the mills. They were the first Polish settlers in Manchester.³⁰

²⁹From private correspondence of F. C. Dumaine on file in Amoskeag Room, Hamilton Smith Library, University of New Hampshire, Durham, New Hampshire.

³⁰Information on the Polish settlement in Manchester has been adapted from a memorandum prepared by Anthony Debski, whose mother-in-law was one of the first two Polish settlers; she was still living at the time the memorandum was written in December 1936.

Several months elapsed before the first Polish couple were given a chance to work - and this in the weaving room of the Stark Mill. It was not until several years later that any of their compatriots joined them. Having had experience in the textile mills of Suncook and in the mills of Massachusetts, they had an easier time finding employment in the weaving and carding departments of the Stark. After the first beginnings had been made, the colony developed very slowly until 1896 when Amoskeag officials heard of the reputation as hard-working operatives that the Poles had earned at the Stark and decided to employ them.³¹ In the census of 1900, 426 Manchester residents were reported as born in Poland. In the preceding year their numbers had been sufficient to justify the appointment of a Polish priest by one of the Roman Catholic churches of Manchester, and in 1902, 850 Polish parishioners joined to organize their own church and parish.

Many of the additions to the Polish colony had come directly from Poland to Manchester, usually upon the invitation of a friend or relative. The local steamship agent was frequently the intermediary and financier. That is, the agent would provide the prospective immigrant with a steamship ticket upon advance payment of half of the fare by the Manchester resident and upon the latter's giving his guarantee that the immigrant would pay the balance to the agent before he discharged any other financial obligations.³² The immigrant usually had to make payments over a period of 2 years before he could repay both the steamship agent and his sponsor.

Accustomed to back-breaking work and long hours on the Polish farms in return for the bare necessities of life, the Polish peasant regarded a 60-hour week in the Amoskeag mills and a biweekly pay of \$7.00 to \$11.00 a considerable improvement in his economic status. For the same reasons he developed into an industrious worker and a valuable employee. It is little wonder then that by 1920 there were nearly 2,000 foreign-born Poles in Manchester.

³¹The depression of the early nineties very likely had something to do with the slow increase in their numbers.

³²For a description of the economic circumstances of the Polish peasant before his emigration, see Wladyslaw S. Reymont's novel, *The Peasants* (New York: Alfred A. Knopf, 1925), 4 vols. A typical pattern of the settlement of a Polish group in an industrial city of the United States is presented by William I. Thomas and Florian Znaniecki, *The Polish Peasant in Europe and America*, Vol. V, "Organization and Disorganization in America" (Boston, Mass.: Richard G. Badger, 1920), pp. 30-3 in particular and all of chapter II for a general discussion.

Greek Immigration

Although there had been a large Greek colony in Lowell for several years, none settled in Manchester until 1890.³³ They found employment at once in the Amoskeag mills. Their numbers were small, however, until the Greco-Turkish War of 1897 when many came to Manchester to escape army service, but many more with the hope of making a few thousand dollars and then returning to their native country. It was said that by 1900 they numbered 300 in Manchester, but the census of that year does not bear out that high figure.

In 1903 some Greeks from Massachusetts were brought to Manchester as strikebreakers in a shoe strike, but late in April they themselves went out on strike.³⁴ They found it easier to obtain work at Amoskeag after the settlement of the strike because neither work experience nor knowledge of the English language was required of them. By 1905 the Greek colony was estimated at 500, a number sufficient to support a Greek Orthodox Church.

The continued immigration of the Greeks to Manchester, often resulting in the displacement of older residents from their jobs because of the willingness of the Greeks to accept lower wages, led to an overt display of hostility among certain nationalities, especially on the part of the Irish. In the summer of 1906, for example, there was a riot in one of the municipal parks, with the Irish on one side and the Greeks on the other. An antagonism that had developed to such a point

³³The material on Greek immigration, unless otherwise stated, has been adapted from a pamphlet entitled *History of the Greek Colony in Manchester, N. H., 1890-1928* by Spyros Cateras (in Greek) and translated for the National Research Project by Mary Kourides of Manchester.

³⁴*Manchester Union*, April 28, 1903. The following newspaper item (*ibid.*, February 4, 1903, p. 8) is not without interest:

"Inquiry at the McElwain shop Tuesday brought the reply that the shop was running, and that new persons were being hired to replace the strikers. It was said that about 100 men went to work at the shop Tuesday morning.

"Rumor has it that two Armenians, who were among those recently hired at the shop, were roughly treated at the hands of some of the workers Monday.

"Phillip Darvean, an Armenian employed at Hoyt's shoe shop, called *The Union* office Tuesday noon and stated that there are only nine Armenians employed at the McElwain shop, and that they, together with four Greeks, were brought from Lynn, Massachusetts Sunday night and taken to the McElwain shop in a hack Monday morning and set to work.

"According to Mr. Darvean's story, an Armenian named Harry Johnson, came to this city from Lynn on Tuesday and called on the management of McElwain shop. Mr. Johnson, he said, agreed to furnish help for the McElwain company to take the place of the strikers. Mr. Darvean asserts that a contract of three months has to be signed by the management of a shop or Mr. Johnson refuses to furnish any help.

"Mr. Darvean stated that Mr. Johnson not only furnishes Armenians but also Greeks and Italians. Late in April the Greeks themselves went on strike."

was bound to persist for many years.³⁵ Nonetheless, immigration continued, and by 1910 the census reported 1,330 foreign-born Greeks in Manchester. Although as many as 200 returned to their native land during the course of the Balkan War of 1912, they came back afterward, urging other Greeks to bring their families and to settle in Manchester. This form of advertising was not without its effects, and by 1920 the census enumerated very nearly 3,000 foreign-born Greeks resident in Manchester.

Many Greeks found their way to the United States as victims of the steamship companies with the aid of some of their unscrupulous compatriots who had developed the scheme of the *padrone*, a form of indentured labor.³⁶ The Greeks in Manchester deny that any such methods were involved in their immigration. It was much more spontaneous and unguided. It is pointed out, for instance, that a Manchester Greek would go to New York to meet a steamer bringing his wife or other relatives. On the same boat would be many Greeks who had very little money and no knowledge of the English language and who were very much bewildered by the vastness of the country. It was only logical that they would be more than willing to follow this man who knew their native tongue and who told them of the many employment opportunities that Manchester could offer.³⁷

Continued French-Canadian Immigration

Despite the entrance of the European immigrants into Manchester after 1890, the company nevertheless was still interested, even as late as 1913, in maintaining the immigration of French Canadians. The Canadian-American Association, a beneficial association with headquarters in Manchester, at that time published biweekly a French-language newspaper that had a wide circulation among the French Canadians of New England and the province of Quebec. From October 1913 to June 1914 this newspaper carried a series of articles under the title "Manchester and Its Advantages for Canadians." The copy was prepared by

³⁵Other factors that may have made for friction were the religious differences and the fact that the Greeks had been used as strikebreakers. Neither of these considerations applied to the Poles, most of whom were Roman Catholics.

³⁶For a discussion of Greek immigration to the United States, covering economic conditions in rural Greece, methods of recruiting, the *padrone* system, and problems of adjustment in the new country, see Henry Pratt Fairchild, *Greek Immigration to the United States* (New Haven, Conn.: Yale University Press, 1911).

³⁷Cateras, *loc. cit.*

the Amoskeag personnel office. The tenor of the discussion can be established by a few quotations:

More than 15,000 persons work in these mills that border on both sides of the river. The wages of these people have permitted them to acquire ease and all seem to be content with their lot. It is true that the large company to which they sell their labor treats them as its own children. . . . [The article here proceeds to enumerate the welfare activities of the company.] That is the reason why the Amoskeag company has never had any trouble with its employees. It treats them not as machines, but as human beings, as brothers who have a right not only to wages but also to the pleasures of life Its employees work not only to earn a wage but to please their employers, who know how to treat them well and to whom they sell not only the product of their hand but also the best of their technical knowledge. It has resolved with justice to itself and its workers the problem of the relations between capital and labor.³⁸

A statement that recurred frequently was one to the following effect:

. . . . a worker finds in the large mills such as Amoskeag permanent employment. There is no fear of forced unemployment or of ridiculous wages that too often have the effect of discouraging the worker, if not to brutalize him. Nor is there any fear there of strikes and their unhappy consequences.³⁹

During these very months the mills on occasion were operating only part time (see appendix B).

How effective a medium for recruiting workers this may have been cannot be said. Whatever the reasons may have been, the number of foreign-born French Canadians in Manchester declined by about 1,400 between 1910 and 1920.

In summary, then, it can be said that Amoskeag's expansion coincided with three successive waves of immigration. First there were the immigrants from Ireland and Great Britain, the second major influx was that of the French Canadians, and the arrival of the Poles and the Greeks constituted the third group. Some of the immigrants had been transplanted by the company, others came upon solicitation but not under contract,

³⁸*Le Canada-Américain*, lundi, 10 novembre, 1913. (Authors' translation.)

³⁹*Ibid.*, lundi, 12 janvier, 1914. (Authors' translation.)

and many more merely found their way to Manchester. With the World War all foreign immigration virtually ceased. In this connection much the same pattern was discernible in the other textile cities of the region.⁴⁰

It seems to be more than a mere coincidence that an acceleration in the rate of the locational shift of the cotton-textile industry occurred after foreign immigration had stopped. In 1910, for example, active spindleage in the South amounted to 66.7 percent of that of New England; by 1914 it amounted to 73.0 percent. During the war years and those immediately following, abnormal price relationships and profits relieved considerably the pressure on costs and wage rates. By 1921, nevertheless, spindleage in the South comprised 85.4 percent of that of New England; in this year the number of active spindles in New England reached a peak of 18,388,000. Thereafter, the locational shift proceeded more rapidly. By 1925 spindleage in the South exceeded that of New England, the percentage standing at 108.2. Five years later the percentage rose to 163.7. In this year, 1930, spindleage in the South attained a peak of 18,586,000. By 1935 southern spindleage was more than twice that of New England - 233.1 percent.

It is probable that if New England textile cities had been able to rely, as they had in the past, on a continuous influx of impoverished peasants from abroad, who would have been willing to accept low wages since even that represented an improvement in their economic position, the southward shift of the industry would not have assumed the extreme proportions that it has actually assumed.

⁴⁰See table A-1. On this showing it would appear that by 1920 in the factory towns the native Yankees constituted a vanishing group. While some Yankee chauvinists bemoaned their relative loss of numbers and community influence, at least one of them found solace in the fact that "the mixture of many nationalities may produce the finest generations the world has yet seen. The immigrants are changing their language, names, occupations, ideas and character, yea, even their stature and facial expressions. They look, talk and act just like Yankees after two generations." Everett S. Stackpole, *History of New Hampshire* (New York: The American Historical Society, 1916), vol. III, p. 193.

APPENDIX B

EMPLOYMENT CONDITIONS, 1911-22

Evidence of Amoskeag's incipient decline around 1911 was presented in chapter III. The case rests on the fears expressed by some Amoskeag officials, the decline in physical output, the smallness of profits, and on some of the terms of the financial reorganization of 1911. Even this showing was achieved only by a general wage reduction of 10 percent in 1908. It has been set forth also that the decline was arrested in the war years, at least in terms of profits, and was resumed with the 1920-21 depression. It is the purpose of this appendix to trace the effects of Amoskeag's varying fortunes over these years on the conditions of employment experienced by Amoskeag workers.

The financial reorganization of the Amoskeag Company in 1911 affected more than the company's corporate structure. It was also the occasion for systematic attempts to reduce costs. To this end a time-study unit was created, and an employment office was established in a new building. The latter was organized in order to centralize the hiring and discharge of workers through a new system of personnel records. It was also to be concerned with the promotion of a program of company welfare, presumably in the hope of reducing labor turn-over, and to maintain relations with its workers on a cordial, nonunion basis.

The program by no means meant the initial intrusion of paternalism in the sense of control over the workers after mill hours. This had existed from the very establishment of the company with the organization of the boarding houses and had continued by virtue of Amoskeag's all but exclusive domination of the Manchester labor market. In 1911 the company's position in the labor market, however, had been somewhat weakened by the growth of the city commercially and industrially in fields other than textiles as well as by the incipient decline in Amoskeag's own economic strength.

The welfare program got under way in April 1911 with the construction of a playground.¹ Between this date and further implementation of the program there occurred in Lawrence, Massachusetts, an important textile strike which was not without its repercussions in Manchester.²

The workers in Manchester showed their sympathy for the Lawrence strikers at an early date. Thus in the "Happenings" of February 2, 1912, we read the following item:

Three meetings were arranged to take place in this city last night by local trades unions, the same to be addressed by sympathizers of the Lawrence strikers. The Chief of Police forbid the same taking place and had one of the speakers who persisted in speaking from the curbing placed under arrest.

Manchester's interest, however, did not cease with this incident. We know, for example, that on or about February 17 a number of families in Manchester agreed to take care of 40 children of Lawrence strikers³ and that on February 23 "a large mass meeting was held . . . on Hanover Square [Manchester] in aid of the Lawrence strikers."⁴ According to the Manchester local of the Cigarmakers' International Union of America, financial as well as moral support was forthcoming. This group of artisans, the most highly paid in Manchester, is reported by union sources to have contributed \$40,000 to the prosecution of the strike.

Insulation against the effects of the strike was desired not only because of the enthusiasm engendered while the strike was in progress but also because of its successful conclusion on March 14.

Although the business outlook was not exactly a rosy one, Amoskeag advanced wages 5 percent on March 11 - 3 days before the termination of the Lawrence strike. This increase, however, was insufficient to halt a contagion of unrest in the mills, which took the form of sporadic walk-outs toward the end of the same month. For example:

¹Some of the data concerning Amoskeag's welfare program were secured from a type-written record of daily happenings kept by the company until 1922. Hereafter the citation will appear as "Happenings." The reference in question is under the date of April 19, 1911.

²For a full discussion of the course of the strike's development see Samuel Yellen, *American Labor Struggles* (1st ed.; New York: Harcourt, Brace and Co., 1936), pp. 171-204.

³Yellen, *op. cit.*, p. 190.

⁴"Happenings," February 24, 1912.

The weavers on 840 looms in No. 3 Upper Weave Room, Southern Division, walked out yesterday and today refusing to weave A. C. A. tickings for the same price that is paid the weavers on same work in Jefferson Weave Room.

[They were joined by] the weavers on 200 looms in No. 3 Upper Weave Room, Central Division [who] walked out this afternoon, refusing to weave 19,000 range for 24.2 cents per cut but demanding 28 cents.

[The idea spread even to some less skilled workers.] The coiler boys and strippers on the cards in No. 9 Lower Card Room, Central Division, refused to work this morning on account of dissatisfaction with their pay, but the matter was adjusted and they resumed work after a shutdown of two hours.⁵

The stoppages were short-lived, for the same source discloses that on April 1, 1912, "about all the weavers that left their work last week returned this morning." But they returned only after the company had announced the granting of an additional wage increase of "about 5 percent" to all operatives.⁶ This restored the 10-percent wage cut of 1908.

Toward the end of April 1912 it was announced by the company that the initiation of textile courses and practical instruction had been decided upon. Later the company instituted a visiting-nurse service and opened a free dental clinic for the children of Amoskeag workers. The Amoskeag Textile Club, in which membership previously had been narrowly restricted to superintendents, overseers, and others in supervisory positions, was incorporated, and membership opened to all Amoskeag employees. Recreational and educational activities were entrusted to this organization.⁷

The rapidity with which the welfare program was expanded in the months following the Lawrence strike makes it difficult to believe that the program had no connection with the events that had transpired in Lawrence and Manchester between January and April of 1912. It appears that the program in part was to be used to counteract any sympathy for a trade union that might have been engendered by the successful Lawrence strike. Presumably, its efforts were well advised since trade unionism gained no foothold until 1918.

⁵"Happenings," March 28, 1912.

⁶"Happenings," April 2, 1912.

⁷See "Happenings," April 28, May 6, and June 24, 1912, and January 13, 1913.

The years that coincide with the World War have come to be regarded, in retrospect at least, as the halcyon days by some present-day residents of Manchester who formerly were Amoskeag workers. The welfare activities, the high nominal wages of the latter part of the period, and the shortened workweek, as well as the hardships of the post-war years, have all combined to create this impression. A more detailed description of the mill events of these years may, however, modify this impression.

THE COMPANY WELFARE PROGRAM

The welfare program attempted to run the gamut of activities usually associated with providing health safeguards, including home building, and offered opportunities for education and recreation for the workers and their families. The first function was directly under the control of the management, as was the granting of pensions, and the remainder of the activities was directed by the aforementioned Amoskeag Textile Club.

Until the strike of 1922 the company maintained a small hospital with a doctor and nurse in attendance during working hours. There were first-aid rooms in the various mills, and the physician made a daily round of calls through the mills at specified hours to save time for the workers as well as for the management.⁸

The company also maintained a staff of nine nurses who, together with a supervisor, made home visits to employees or their families without charge. If the homemaker was ill, the company furnished a maid gratis to care for the home during the illness. In addition to the nursing care, the supervisor had charge of giving relief to families in need. The supervisor was empowered to give cloth from the mill to make clothes for the family, and if the mother was unable to sew, the clothing was made up for her. Fuel wood from the large tracts of woodland owned by the company was offered to employees at a reduced price or given as an outright gift to its needy workers. The nurses also advised families in planning their expenditures and otherwise acted as case workers for the Amoskeag personnel.⁹

⁸ *Amoskeag Bulletin*, March 15, 1920. (Fortnightly bulletin issued by the company.)

⁹ *Ibid.*

A free dental clinic with one dentist in attendance was operated by the company for the children of its employees. Although figures on the number of visits are not now available, it is doubtless true that the clinic must have been an important factor in developing preventive care and making more widespread a knowledge of dental hygiene among a group of children whose parents could ill afford to pay for such treatment or whose knowledge would be very much limited because of their peasant background. It may be noted, however, that this was a relatively inexpensive service.

Throughout its corporate history Amoskeag had been interested in the housing problem. Beginning with 1912, it attempted to encourage home ownership on the part of its steady employees. The company offered to sell to workers of 5 years' standing lots of land 50 x 100 feet on the West Side of Manchester, under restrictions limiting the house to a two-family structure. The company took first and second mortgages each for one-half the purchase price of the land. Each employee could obtain suitable building plans from Amoskeag without charge. The mortgage remained without interest if a suitable dwelling was built and as long as the mortgagor remained in the company's employ and resided in the house. At the end of 5 years, if the operative was still with the company and occupied the house, the second mortgage was surrendered upon payment of \$1.00; the first mortgage was settled by a like payment at the end of the tenth year if the same conditions had been satisfied. In case of death, heirs of the holder succeeded to his rights.¹⁰ It is not known how many were able or willing to avail themselves of this opportunity and what its effect was on labor turn-over and the real income of the workers.

The granting of pensions, which was given much publicity, at least locally, was also inaugurated at this time. As in the case of other private pension systems, the workers were devoid of any legal rights. The mill agent at his own discretion recommended aged workers with a long service record for a pension grant. These recommendations had to be approved by the board of trustees of Amoskeag, but once approval was forthcoming, monthly payments were made until the death of

¹⁰*Ibid.*, February 15, 1912.

the pensioner, although the board could and did alter the amount of the monthly stipend at will.

Only overseers or those who had direct charge of some department in the plant were considered eligible for pensions at the inception of the policy in January 1913. Accordingly, the first to receive this benefit was an overseer in the company's service for 30 years. The monthly grant was \$40.00. By the end of the year five additional pensions were granted, and two others were added to the list in 1915. Not until March 1916 was eligibility extended to include the wage earners of long service, three of whom were pensioned at \$20.00 a month on that date. This came to be the usual monthly grant for wage earners.

In the course of the year 1916, the number of pensioners was increased from 11 to 40, at a monthly cost of \$710. Thereafter the pension list was added to more rapidly. It appears that the maximum number on the pension list in any one year was 94 in 1922, although it should be noted that the figures for 1920 and 1921 are not available. The maximum annual expenditures on this account also occurred in 1922 and amounted to \$27,280. After October 1923 only one pensioner was added to the list, according to the minutes of the board of trustees, but the monthly payments were continued to those previously on the list until they were removed by death. Since the service by its very nature could not be completely terminated in 1922, as was the remainder of the welfare program, payments were continued until July 1936 when liquidation was ordered. Fourteen persons were on the list when payments ceased.

The monthly grant paid to wage earners was reduced from \$20.00 to \$18.00 in 1928 and further reduced to \$16.20 in 1932. However, in 1929 a former employee "who had rendered much and valuable service to Amoskeag" received a monthly pension of \$200. This person, too, sustained several reductions, and the rate was settled at \$50.00 in February 1933.

There can be no doubt that the pensioners were fully deserving of the assistance. The Amoskeag trustees had approved grants for 147 of their workers. Only two pensioners had been employed with Amoskeag for less than 30 years. Nearly one-fifth of the total (19.2 percent) had been attached to the

company for 30 to 39 years and more than a third (35.6 percent) having a minimum attachment of 50 years.¹¹ Naturally, workers with such a long service record would be well advanced in years. The age at time of initial grant is known for the 44 persons accorded pension status after January 1921. More than half (52.3 percent) were 65 to 74 years of age, and one-fifth (20.5 percent) were between 75 and 84. Only 2 were under 55 years of age, and 10 (22.7 percent) were between 55 and 64.

This provides some basis for judging the adequacy of the pension coverage during the active period 1916-23. During those years, there were 137 workers with a minimum service record of 30 years who were granted pensions. In the 10-percent

Table B-1.- ANNUAL COST OF PENSIONS AS A PERCENTAGE OF ANNUAL MANUFACTURING COSTS, 1916-35^a

Year	Cost of pensions (dollars)	Manufacturing costs (thousands of dollars)	Cost of pensions as percent of manufacturing costs
1916	2,750	24,425.2	0.011
1917	10,500	35,497.4	.030
1918	13,360	42,922.7	.031
1919	14,800	35,971.1	.041
1920	n.a.	43,157.1	-
1921	n.a.	27,349.0	-
1922	27,280	11,623.4	.235
1923	25,510	37,900.6	.067
1924	23,800	29,668.6	.080
1925	18,610	32,003.4	.058
1926	16,340	26,041.3	.063
1927	16,735	25,020.4	.067
1928	15,660	25,086.4	.062
1929	12,240	25,969.0	.047
1930	10,976	16,790.2	.065
1931	9,587	14,752.7	.065
1932	7,240	8,832.5	.082
1933	4,642	13,124.1	.035
1934	4,584	15,118.5	.030
1935	4,422	8,818.9	.050

^aBased on an NRP tabulation of company records.

n.a. Data not available.

¹¹43.8 percent had been with the company 40 to 49 years at time of pensioning.

sample of the Amoskeag personnel files,¹² during the same years 29 workers with 30 years or more of Amoskeag service were separated finally from the pay roll. Thus the actual coverage of the pension plan was 137 compared with an estimated potential coverage of 290.

It could not be convincingly urged, moreover, that the pension costs actually incurred were so onerous that a more complete coverage would have been financially prohibitive. In table B-1 the annual pension costs are expressed as a percentage of the annual manufacturing costs. The highest percentage was eight-hundredths of 1 percent, with the exception of 1922 when the mill was in operation for much less than 6 months. A cost of this magnitude could scarcely have placed Amoskeag at a competitive disadvantage.¹³

The remainder of the company welfare activities was carried out through the instrumentality of the Amoskeag Textile Club, the origin of which has already been described. Control by the company management was assured by the company agent's serving as president in its formative years. Certainly the club's program in many respects was closely correlated with the company's needs and not unrelated to the workers' interests as they conceived them at the time.

For example, an arrangement was made with the International Correspondence School of Scranton, Pennsylvania, whereby courses of study in several technical fields were offered to employees at especially advantageous terms. Those who received diplomas from the International Correspondence School for the textile course were refunded half the cost of the course 3 months after its completion, and the other half was returned to the employee if he was still with the company at the end of 6 months. The upper floor of one of the office buildings was fitted up as a study room, and an instructor was paid by the company to aid the students. A textile school completely equipped with the latest machinery was also established for purposes of practice.¹⁴

Instruction in sewing and cooking was given without charge to any member of the family of an Amoskeag worker. An instructor

¹²See appendix G for a description of this sample.

¹³The total costs for pensions over a period of 23 years were \$299,411.25 if the costs in 1920 and 1921 (years for which figures are missing) are assumed to equal the costs in 1922, the maximum amount on record.

¹⁴*Amoskeag Bulletin*, December 12, 1912.

was paid by the company, and modern equipment was provided for cooking and sewing. In the fall of 1914 as many as 250 persons were enrolled in these classes.¹⁵

By 1915 the curriculum of the Textile Club School included courses in mechanical drawing, shorthand, typewriting, mathematics, automobile construction, and practical weaving.

For the children a playground with gymnastic apparatus, swimming pool, running track, and baseball diamond was maintained under the supervision of a caretaker. In the winter a skating rink was provided; in the summer free band concerts were given, and the boys were sent to camp on Amoskeag property. Boy Scout troupes were also organized.¹⁶ Gardening by the children, as well as by the adults, was encouraged in many ways, particularly during the war years.

For the adults the club had its own recreation field, gun club, picnic ground, and summer houses for rent at \$3.50 per week. The ATC, as it was locally called, maintained for its members a reading room with magazines and books of all kinds; this later became a regular library maintained in the Textile Club House.¹⁷ On the side of the purely social activities, the ATC arranged for its members a field day every summer, a banquet every winter, and sponsored a glee club and dramatic society. Speakers, as well as musical comedies and concerts, were presented. In 1916 active members of the club numbered 1,625.

The club house is said to have been popular among Amoskeag workers. Many doubtless frequented it for the pleasure to be derived from its many activities and facilities. The more ambitious attended, it is claimed by some former Amoskeag workers, in order to curry the favor of the hierarchy of Amoskeag bosses.

Two other club activities remain to be mentioned. At the recommendation of the ATC the treasurer of the company bought for any employee from 1 to 20 shares of Amoskeag preferred stock at \$75.00 per share on the following terms: The purchaser was to pay down \$5.00 on each share and \$1.00 per

¹⁵*Ibid.*, September 15, 1914.

¹⁶*Ibid.*, December 12, 1912.

¹⁷*Ibid.*

share on each fortnightly pay day until it was paid for.¹⁸ Apparently it was not until the stock split-up in 1920 that any of the employees took advantage of the offer. From July 1920 to August 1921, according to entries in a ledger, 475 employees paid \$199,069.97 for 2,647 shares of preferred stock. That is, 3.3 percent of the average number on the pay roll during 1920-21 purchased 1.3 percent of the preferred shares that had been issued. More than three-quarters of the purchase price was regarded by Amoskeag as a profit. Thus in the general ledger we find, under the profit-and-loss account for the 6 months ending May 30, 1921, an entry of \$71,697.90 which is described in the journal as profit from sale of stock to employees. An entry of similar character to the amount of \$44,383.44 was recorded in the account for the 6 months ending November 30, 1921. In the following 6 months this profit amounted to \$17,850 and in the succeeding 6 months to \$20,384.11.

The other activity was the fortnightly publication of the *Amoskeag Bulletin*, which has been the main source of information on the welfare program. Its purpose was to keep the workers posted on all the events of the mill and to serve as a liaison between the workers and the management, although it probably was not a free forum for discussion.

Obviously, the annual dues of \$2.00 were insufficient to finance this varied program. Much the greater part of the balance, however, was not defrayed by the Amoskeag Manufacturing Company. The funds were derived from the sale of remnants and imperfect goods which were sold to the Textile Club by Amoskeag at cost price. The club maintained a store where the public could purchase these remnants at less than retail price but at enough of a profit to the club so that the income carried the activities of the Amoskeag Textile Club. Thus the only cost to the company was the salaries of about a score of professional persons.¹⁹

EMPLOYMENT CONDITIONS PRIOR TO AND DURING THE WAR

However large or small may have been the addition of real income provided by the welfare program, it must have been very

¹⁸ *Ibid.*, February 1, 1913. The price range of the stock between July 1920 and August 1921 was 70 to 90.

¹⁹ This information was supplied by an erstwhile chairman of the ATC's finance committee who had been paymaster of the company for many years previous to liquidation.

welcome to the workers, especially in the first part of this period. In 1911, for example, the unweighted average full-time weekly wage in the 17 most important textile occupations was \$9.53. The 10-percent increase in 1912 brought this average up to \$10.55 in that year. In the succeeding 2 years this wage amounted to \$10.38 and \$9.93, respectively.²⁰ This represents a more favorable situation than actually existed since it is based on a full-time wage, and, as will be shown presently, part-time employment was widely prevalent during these years. Some idea of what this wage involved in terms of real income may be secured from a company notation that the weekly board (excluding room) in the company-owned boarding houses in 1912-13 was \$3.00 for men and \$2.75 for women.

Only two walk-outs occurred between the inauguration of the welfare activities in 1912 and a strike in the summer of 1918. On January 8, 1913, it was recorded in the "Happenings" that "on account of two Greeks being discharged from No. 4 Upper Spinning, Central Division, for staying out from work, 28 Greeks employed in that department walked out at 6.30 A.M. this morning." On March 16, 1914, the *Amoskeag Bulletin* reported:

An unfortunate misunderstanding occurred with the weavers in one of the No. 11 mill weave rooms last Thursday by reason of which they were induced to make a demonstration that is not in accordance with Amoskeag traditions and is in violation of the principles of the employees of the company.

It is regrettable from every standpoint that any Amoskeag people, without proper notification, and before all other means had failed, should walk out from the mills, because it gives a false impression to those outside of the mills who cannot be acquainted with the true conditions inside.

That textile-trade conditions were unsettled in this period has been indicated in other sections of this report. That Amoskeag did not escape the pre-war depression can be shown by reference to mill notices and to the statistics based on the personnel records. The uncertainties were in evidence even before the outbreak of hostilities in Europe in August 1914. For example, the entire worsted section (the wool-sorting and top-making departments excepted) was shut down for 1 week in mid-October in 1913 and for the first week in November.

²⁰Adapted from a company record.

When in January 1914 the law providing for a 55-hour week superseded the 58-hour law, Amoskeag retained the weekly wages of the longer week. The company commented on this on January 1, 1914, in the *Amoskeag Bulletin*, in the following manner:

At this time of nation-wide industrial depression and uncertainty, when securities of all kinds have shrunk to the lowest level seen for years, with the strong probability that the end is not yet, - when the great industries that give the people employment see themselves confronted with a lack of orders and the consequent deplorable necessity of a reduction in their working forces, the action of the Amoskeag Manufacturing Company, in keeping the 55-hour weekly wage the same as the 58-hour weekly wage, stands out with especial significance.

In the face of a very unsettled gingham and dress goods market, brought about by the reduction in tariff rates by the present administration, reasons were at hand in abundance to keep the hourly rate the same. It means that \$350,000 and \$400,000 more money will be paid to Amoskeag employees each year than would have been paid, and this amount must be lost by the shareholders.²¹

With the declaration of war by the European powers there was additional evidence of depressed conditions and the mills were closed for several weeks in the summer of 1914.

While this action may have forestalled a complete shut-down in the winter of 1914-15, it did not prevent part-time employment in some of the departments in the fall of 1914. The cotton-weaving departments, for example, beginning with September 21, had to stop work at Friday noon of each week until further notice. In September 1915 the entire cotton section had to stop work each week on Thursdays; that is, a working schedule of 40 hours per week was put into effect. What this meant in terms of economic welfare can be surmised when one learns from a company record that the average hourly rate in the manufacturing departments for the 2 weeks ending October 22, 1915, was 18.43 cents, or \$7.37 for a 40-hour week. In the mechanical departments the comparable figures were 24.06 cents and \$9.62.

²¹The following notice posted on January 5, 1914, is also significant:

"Straggling of employees from different departments through the yard and congregating in the hall and stairways just before noon and night must be stopped. The matter is entirely in the hands of the overseers and may be overcome by a little attention on their part.

"With the new 55-hour law it becomes more than ever necessary that employees work and that machines be kept running the full time required by the rules of the company." ("Happenings," January 5, 1914.)

The 5-percent advance in wage rate made at the very outset of 1916 followed similar announcements by the neighboring factories owned by Pacific Mills.²² On February 3 there was a return to the full-time schedule (55 hours per week) from the 40-hour schedule for all those employed on draper looms. This meant increased working time for 1,300 hands. Continued improvement permitted an increased time schedule of 50 hours per week for all remaining cotton-weaving workers in March, thus giving 3,000 operatives another day's work.²³ Another wage increase of 5 percent on April 19, 1916, was further evidence that wartime prosperity was beginning. Textile workers in Lawrence, however, received a 10-percent advance at that time. The continuance of the Amoskeag policy of smaller wage-rate advances than those in the neighboring communities was one of the factors that helped precipitate the strike 2 years later. By June 10 the company was working full force with all weaving on a full-time basis, and by December 4 there was another wage advance of $7\frac{1}{2}$ percent, which on this occasion was only $2\frac{1}{2}$ percent less than the increase in the Lawrence mills.²⁴

It should be mentioned at this point that the cost of living had also begun to increase. This is indicated by the index of retail food prices for Manchester computed by the United States Bureau of Labor Statistics. Food in Manchester was 12.9 percent more costly in 1916 than in 1913,²⁵ whereas the increase in wage rate over the same period was 14.9 percent.

Despite this revival in 1916, the cotton section failed to earn its dividend payments by \$196,000, although the worsted section earned almost twice its dividend requirements.²⁶ The deficit of the cotton section has been explained by the disproportionate increase in the cost of cotton and coloring material, particularly the latter. This was followed by 2 boom years, 1917-18, the tremendous profits of which, as described elsewhere, could be attributed in part to the lagging of wage increases behind the increases in selling price.²⁷

²²For the Amoskeag announcement see "Happenings," January 3, 1916; the announcement at Pacific Mills is taken from a miscellaneous company record.

²³*Amoskeag Bulletin*, June 15, 1916.

²⁴For wage advances in Lawrence, Massachusetts, between 1916 and 1920 see "Advances in Lawrence," *Textile World*, Vol. LVII, No. 21 (May 22, 1920), p. 27.

²⁵*Retail Prices, 1890 to 1928* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 495, Aug. 1929), p. 30.

²⁶See table 12, chapter III.

²⁷See chapter III.

Obviously, it should not be inferred from this statement that, since these were years of lagging wages and relatively high profits, there had been no advances in wage rates. On the contrary, wage-rate increases in the industry were made frequently in these years throughout the region in an effort to keep up with the advancing cost of living. Although Amoskeag was obliged to fall in line it tended to make smaller advances than its competitors in the Merrimack Valley.

For example, twice in 1917, in May and October, the mills in Lawrence advanced wage rates 10 percent,²⁸ while at Amoskeag the increase on each occasion was only $7\frac{1}{2}$ percent. It was this inequality in treatment that provided the basic reason in the beginning of 1918 for the organization of a trade union by the United Textile Workers of America, a campaign that had to be carried on under cover.

In April 1918 Amoskeag matched the regional increase of 10 percent. Although this forestalled any labor trouble at that time, such difficulties soon appeared. On May 14 the workmen in the dye house, numbering about 175, went out on strike when their demands for an average increase, said to have amounted to 25 percent, were refused.²⁹ This dispute was settled and other difficulties remained dormant until the next wage increase was announced on June 17.

This amounted to an increase of $12\frac{1}{2}$ percent, although the advance in Lawrence was only 10 percent. However, six mills, according to the Bureau of Labor Statistics, granted increases of 15 percent at this time.³⁰ The reappearance of the differential wage increase was realized by the Amoskeag workers, or at least by the small organized sector which decided to put a halt to the practice by striking for a raise of 15 percent. Accordingly, the UTW caused its workers to strike the first week in July at Amoskeag as well as at other mills in the region.³¹ This was the first trade-union strike in Amoskeag

²⁸"Advances in Lawrence," *loc. cit.*

²⁹*Manchester Union*, May 15, 1918.

³⁰"Employment in Selected Industries in July, 1918," *Monthly Labor Review*, Vol. VII, No. 3 (Sept. 1918), p. 296.

³¹"Strikes and Lockouts in the United States, July to September, 1918," *Monthly Labor Review*, Vol. VII, No. 6 (Dec. 1918), pp. 359-60, reported: "Early in July several large strikes attracted considerable attention, notably those in the cotton mills in Rhode Island, Lowell, and Manchester, N. H., in which 35,000 operatives were concerned"

since 1886, when the Knights of Labor had waged an unsuccessful one.

At the time of the strike call the union membership was small but drawn from strategic positions in the mills. As a consequence the work was so disorganized that "it was deemed best to shut down all departments of both concerns" (Amoskeag and Stark mills).³² Since these mills were working chiefly on war orders, the Secretary of War immediately dispatched an arbitrator who granted the strikers' demand of a 15-percent increase in place of the 12½-percent advance. In this manner the strike was settled within 5 days, which was sufficient time for the union openly to add some 5,000 new members.³³ For the succeeding 4 years the union was a factor in employer-employee relationships.

It is worthy of emphasis, however, that the union had no more than a foothold. Ten locals, each representing a craft, were affiliated with the Manchester Textile Council.³⁴ While the Amoskeag management met with representatives of the council and established an adjustment board to meet with the grievance committees set up by union members in each department, there was no arrangement for the union check-off of dues or for a closed or even preferential shop.

POST-WAR ADJUSTMENTS

It was very soon after the armistice that difficulties in the way of sustained manufacturing operations set in. Early in December 1918 (December 2) the *Amoskeag Bulletin* reported a shut-down in several worsted rooms and predicted short-time operations throughout the plant. In February 1919 a nominal 48-hour week was instituted as the full-time week, and it was remarked that the mills were actually running on a 35-hour week. Thus it is no coincidence that industrial demobilization set in with demobilization of the army.

The 48-hour week was a union demand by the UTW as part of a national campaign. Most of the New England textile mills adopted the 48-hour week after having fought it bitterly for

³² *Amoskeag Bulletin*, July 15, 1918.

³³ *Manchester Union*, July 1, 1918.

³⁴ The 10 locals were loom fixers, dresser tenders, ring spinners, weavers, cloth finishers, wool sorters, carders, winders, twistlers, and dyers and bleachers.

a number of years. An important factor in breaking down opposition in Massachusetts was the certainty that the legislature would eventually pass such legislation. Since there were no changes in the time or piece rates, this was equivalent to a reduction of about 7.7 percent in full-time weekly earnings.

Presumably for this reason and because of the ever-mounting cost of living, the Manchester Textile Council requested a 15-percent increase on May 14, 1919, to become effective on June 2.³⁵ Within a week the company acceded to this request, as did other mills in the region. There was the further stipulation that the agreement was to remain in effect without change until the third Monday in April 1920.

Despite this agreement and in concert with other mills in New England, an additional voluntary advance of $12\frac{1}{2}$ percent was granted on December 1, 1919. The continued increase in the cost of necessities was doubtless a motivating factor, particularly in view of the company's having earned more than \$2,000,000 above dividend disbursements in the fiscal year ending November 30, 1919, although physical production had declined some 16 percent in the same 12 months.

The last wage increase in the post-war boom occurred toward the end of May 1920. Within a week, however, there were unmistakable signs of the approaching depression, particularly in the worsted section. On June 2, for example, the wool-sorting and top-making departments were put on a 5-day schedule, and the spinning, drawing, twisting, dressing, weaving, and burling departments were to operate $3\frac{1}{2}$ days per week, with the dyeing and finishing department on a 4-day week. Further curtailment in operations occurred in the following 2 months, and at the end of July the worsted section was shut down indefinitely because of "business conditions and the uncertainty of the coal supply." It remained closed until January 1921 when operations were resumed on a part-time basis.

By the latter part of October in 1920 the cotton section was also affected. Thus on October 20 three weaving departments went on a 3-day schedule, and one spinning department was shut down. In December the entire cotton section was to run only

³⁵"Adjustments," Vol. I, May 14, 1919. The management kept a record of its transactions with the union in chronological order in loose-leaf form and labeled it "Adjustments." Hereafter the reference will be as in the above.

the first 3 days of each week until further notice, although more than 2 months previous to this Amoskeag had announced a $33\frac{1}{3}$ -percent price reduction on gingham, napped goods, shirtings, ticking, and denim.

Price reductions failed to prevent short-time operations and a complete shut-down for 2 weeks ending January 3, 1921, and they also presaged a wage reduction. When operations were resumed on that date, it was with a $22\frac{1}{2}$ -percent reduction in the wage scale. Similar reductions were announced by a majority of the New England mills, except those controlled by the American Woolen Company.³⁶ This action, it should be noted, was conditioned not by the profit record of the year just completed but by future prospects, for in the year ending November 30, 1920, the cotton section had earned \$2,610,000 and the worsted division \$45,433. Although a 100-percent stock dividend had been declared in this year with a proportionate increase in dividend disbursements, a \$400,000 surplus remained after dividends.

An indication of the economic welfare of the workers at this time is afforded by a comparison of an index showing changes in wage rates with an index of changes in the cost of living. Unfortunately, for this period only an index of retail food prices is available for Manchester, and it is well established that during these years the cost of food had larger fluctuations in both directions than had the cost of all items entering into the cost-of-living index. Accordingly, for the purposes of our comparison the cost-of-living index for Boston is taken as representative of the relative changes in Manchester's cost of living.³⁷ The comparison is set forth in table B-2.

From 1914 through 1918 wage-rate changes tended to keep pace with the rising cost of living. It was not until 1919 that the wage-rate index appreciably exceeded the cost-of-living index. The divergence increased in 1920 and continued to be considerable in 1921 despite the $22\frac{1}{2}$ -percent wage reduction of that year. The resulting index of '203 was some 15 percent above the cost-of-living index. Concurrent with this putative increase was the reduction of the workweek from 55 hours to 48.

³⁶"Textile Wage Reduction Starts," *Textile World*, Vol. LVIII, No. 25 (Dec. 18, 1920), p. 39.

³⁷It is of interest to note that the index of the retail price of food in Manchester was higher beginning with 1918 than the analogous index for Boston.

**Table B-2.- INDEXES OF COST OF LIVING IN BOSTON
AND WAGE RATES AT AMOSKEAG, 1914-22**

(December 1914=100)

Year and month	Cost of living in Boston ^a	Wage rates at Amoskeag ^b
1914 (December)	100	100
1915 (December)	101	100
1916 (December)	115	119
1917 (December)	135	137
1918 (December)	165	173
1919 (December)	185	224
1920	196	247
1921	176	203
1922 (February)	165	163

^aSince the cost of living rose continuously from December 1914 to June 1920, and since cost-of-living figures are available only for December of each year from 1914 to 1918, the index for the period of continuous rise, 1914-19, represents relative changes from December to December. For the remaining years, years of mixed movement, averages of available figures are shown. For 1920 the average is based on December 1919 and June and December 1920, weighted 1, 2, and 1, respectively. For 1921 the figures for December 1920 and May, September, and December 1921 were combined into an unweighted average. The Amoskeag strike was declared in February 1922, and the December 1921 and March 1922 figures were averaged to obtain the relative cost-of-living level for the first few months of 1922. Figures were computed from *Handbook of Labor Statistics, 1936 Edition* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 616, 1936), p. 82.

^bThe index of wage-rate changes is constructed in a manner similar to that of the cost-of-living index. That is, for 1914-19 the figures are for December; for 1920-21 figures represent an average of monthly levels. The figure presented for 1922 indicates the level to which rates would have dropped if the 20-percent decrease announced on February 13 had become effective.

It should be remembered, however, that the index relating to wages is based on rates and not on actual earnings. Accordingly, in view of the extent of part-time operations and complete shut-downs in the post-war years that were reviewed above, the improvement indicated by these data must have been more nominal than real.

There is evidence at hand, moreover, to support this contention. A company record has survived which lists by departments the number of workers who earned over \$1,000 in 1920. It was prepared for purposes of income-tax reporting. In this year, in which the highest wage rates obtained, 5,084 persons were reported as having earned a minimum of \$1,000. This is only 36 percent of 14,209 employees, the average number on the Amoskeag pay roll in 1920. The percentage would be considerably less if it were possible to base it on the number of different individuals in Amoskeag's employ during the year instead of on the average number. Even the percentage given is

somewhat misleading, for 30 percent of the 5,084 who received \$1,000 or more were not textile operatives but workers in the various mechanical and maintenance departments. Employees in these latter departments, however, accounted for only about 14 percent of the total number on the Amoskeag pay roll at this time. Of the textile operatives on this list, 46 percent were employed in weaving departments, although the employees of these departments only constituted about one-third of the entire staff of textile operatives. It seems, then, that in the year of highest wage rates only about one-third of the workers could earn as much as \$1,000, and this opportunity was restricted by and large to the most skilled employees.

The wage cut, it should be mentioned, was a last rather than a first resort for reducing labor costs. Some form of the "speed-up" had constituted the initial attempt. For example, in March 1920 the management received the following complaint from Local 793 (dresser tenders):

At our meeting last Wednesday night (March 24), it was reported that some warpers run from three to seven frames per girl and the Local want the girls to run no more than three, as [on] more than that they cannot produce good work.³⁸

In September of the same year a piece rate was substituted for an hourly rate among hand folders.

We [the management] explained to the Grievance Committee that the proposed change would be no reduction in wages, and that the prime object of this change was to increase the production. We further explained how 25% increase in production would automatically increase wages by 25%.

[To this explanation the mill agent added a peroration to the effect] that the present method of limiting production was economically wrong. . . . that this nation could not get ahead if everybody loafed on the job, and that the highest degree of civilization was acknowledged by the height of production per person.³⁹

The imposition of the $22\frac{1}{2}$ -percent wage cut, however, did not put an end to the speed-up at Amoskeag. Indeed, on the very day that the wage cut went into effect, the adjustment board announced:

³⁸"Adjustments," Vol. 11, March 27, 1920.

³⁹*Ibid.*, September 13, 1920.

It is the understanding of the Amoskeag at this time that the agreement that has heretofore been [in effect] has been automatically discontinued and that loom fixers will be asked and required to perform a reasonable day's work, no limit being put on the number of warps put in by any fixer in any given length of time.⁴⁰

When a union official asked the representative of the company if any more pay would be granted if the loom fixers did more work, the answer was "Not a cent."⁴¹

The continuance of this system was even intimated when in March 1921 Amoskeag announced a price reduction of its napped goods from 37½ cents a yard to 12½ cents a yard. The company stated: "The reduction [is] made in view of the radically changed outlook in raw cotton and the prospects of reduced production costs."⁴²

Later in the year the union reported "that loom fixers in Worsted were being driven to death."⁴³ In October the adjustment board met

to determine whether the worsted weavers are justified in registering a complaint concerning a six loom experimental job that is now being conducted in the Worsted Weave Room.

[According to the summary of this discussion:] The Worsted Weavers are afraid that the number of looms per set is likely to be increased and to offset the possibility of any such action, they wish to have it known at this time that they will not under any consideration run more looms than they are running at the present time. They think that the experiment at present being conducted is for the purpose of determining whether the weaver can successfully run more looms. They have been advised by their International president to accept no increase in looms without his sanction.⁴⁴

Two months later no satisfactory arrangement on this particular problem had been reached, and a union representative advised the adjustment board "that he thought the final solution of the six loom problem would probably be for the weavers to hold a meeting and tell the management to go to Hell as far as the six loom set was concerned."⁴⁵

⁴⁰*Ibid.*, January 3, 1921.

⁴¹*Ibid.*

⁴²*Amoskeag Bulletin*, March 15, 1921.

⁴³"Adjustments," July 21, 1921.

⁴⁴*Ibid.*, Vol. III, October 26, 1921.

⁴⁵*Ibid.*, December 13, 1921.

That the speed-up was not restricted solely to the weaving department is evidenced by a grievance placed with the adjustment board. It was obliged "to determine why Doffers in No. 9 Central Spinning should be asked to run more work for less wages.

"Doffers had been running 50 sides and receiving \$18.21 after the reduction in wages of January 3, 1921, and that the present schedule for 56 sides paid a weekly wage of \$17.40."⁴⁶

This type of complaint became so general that in November of this year the adjustment board reported to the company:

It appears to us that [the] Executive Board of the Textile Council is centering their general complaint on the point that the operatives feel that a scientific method of decreasing the wages has been instituted by increasing the lengths of the cut, and that the only satisfactory method of remedying this condition as far as the operatives are concerned, is to increase the wages on the various operations; not perhaps, in direct proportions to the increase in yards, but substantially.⁴⁷

When the wage cut of $22\frac{1}{2}$ percent became effective in January 1921, the electricians and others in the mechanical department sought through the adjustment board "to determine whether a new working agreement [would] . . . be arranged between the union and the management."⁴⁸

Mr. Straw [management] tried to impress upon the committee [from the mechanical department] the fact that irresistible [sic] minimum prices had been established by the Amoskeag, and that this, added to the fact that raw material had been materially reduced in price, was the only reason why we could run the mills at all. He said that he could see no advantage in entering into another agreement, no reason for signing anything. He said that no agreement was signed with slasher men, loom fixers, grinders, etc., and that he did not intend to renew the agreement with mechanics. Mr. McCabe [union] asked if an agreement did not make [for a] better feeling. Mr. Straw said that we had all the facilities for meeting grievance committees, and that we would be glad to have committees come to the office at any time to discuss matters of common interest. He said that he rather thought that the agreement had been a disadvantage for the reason that

⁴⁶*Ibid.*, Vol. II, January 31, 1921.

⁴⁷*Ibid.*, Vol. III, November 14, 1921.

⁴⁸*Ibid.*, Vol. II, January 7, 1921.

it got away from the basic idea of all being in the same boat.⁴⁹

According to the remarks of the representative of the electricians' union, this made for a tense situation:

. . . . [He] said it would look as though the electrical workers were forced to take this cut at this time not through their inability to stop it, but because he did not want to be the person to set the match to the already built bonfire that would cause a condition throughout New England that he would hardly care to picture.⁵⁰

This situation seemed to continue throughout all of 1921 and was to be relieved only by the strikes of the following year.

The same sort of situation could be found among the textile operatives. Thus, when the inspectors in the napping department signified their intention of withdrawing from the union "because they feel that they can be of greater service to the company if they do not belong to the union", the union sought "to determine whether the company would stand back of men who elected to withdraw from the union to the extent of allowing them to work with union men, and whether in the event of trouble nonunion men would be asked to leave their jobs."⁵¹ The company position of neutrality with regard to requiring union membership was reaffirmed.

There is also evidence of the management's circumventing union procedure. For example, the union was represented before the adjustment board as

. . . . very much disturbed because we [management] had taken occasion to talk with Mr. _____ himself rather than try to reach a satisfactory settlement through the Grievance Committee. We assured [the union] that the company would at all times maintain the right to talk with any of its employees whether or not they were affiliated with any union, and that operatives registering a grievance who did not belong to the union would receive the same courteous treatment as those affiliated with the union.⁵²

The management's antiunion acts occurred with increasing frequency until the union found it necessary in the latter part

⁴⁹*Ibid.*

⁵⁰*Ibid.*

⁵¹*Ibid.*, Vol. II, February 3, 1921.

⁵²*Ibid.*, Vol. III, October 6, 1921.

of October to lodge with the adjustment board a complaint of antiunionism.

The Company is neutral but the Executive Board [of the Textile Council] say that in expressing their neutrality the overseers frequently lean toward the nonunion operative. This, they say, is demonstrated in the case of overseer P____, who, they claim, told nonunion operators it was not necessary for them to join the union; that their jobs were secure and that the Company would stand behind them at all times.

Mr. F____ (union) says that overseers do not like unionism because it does not allow them the privilege of being Czars as they have been in the past. Overseers, according to Mr. F____, cannot under unionism [82 percent organized], kick the help around. Mr. F____ said that he voiced the opinion of all the union operators in the plant when he advised us that the feeling ran that Mr. W. P. Straw, Agent, was desirous of breaking up the union organizations.⁵³

To complete the picture of the factors that conditioned employee-employer relationships at this time, it is necessary to call to mind the company's financial record in 1921. The cotton section had earned \$885,437 and the worsted section \$557,885, but this was insufficient to meet the enhanced dividend requirements established in the previous year. As a consequence, more than \$1,000,000 were withdrawn from the surplus to pay dividends. It will thus be readily appreciated that any frontal attack on the operatives' working conditions would cause an outright break. The notice posted in the different departments of Amoskeag on February 2, 1922, was just such an attack.

NOTICE

"Commencing Monday, Feb. 13, 1922, a reduction of 20 percent will be made in all hour and piece rates in all departments of the Amoskeag. At the same time the running time of the mills will be increased from 48 to 54 hours per week, in accordance with the schedule posted herewith.

W. P. Straw, Agent."⁵⁴

The explanatory statement issued by the mill agent to accompany the notice asserted that the wage-and-hour differentials

⁵³*Ibid.*, October 25, 1921.

⁵⁴*History of Amoskeag Strike During the Year 1922* (Manchester, N. H.: Amoskeag Manufacturing Co., 1924), p. 1. This complete account of the Amoskeag strike was written by an anonymous Manchester Journalist. Although it was prepared for and printed by the company, it has achieved a full measure of impartiality.

enjoyed by their southern competitors had forced a decision of this character upon the northern manufacturers.

" They have no control over the prices of cotton, wool, coal, nor of taxes, nor of any of the large factors which enter into the total cost of manufacturing, except the wages paid the employees.

"Realizing the impossibility of successful competition with a rival who has not only every advantage in location, but the extreme advantage of lower wages and longer hours, the management of the Amoskeag Manufacturing Company considers the readjustment notices, of which are today posted, imperative

"Having in mind our full time operation since, and on account of the reduction one year ago, the Company now hopes for several months at least of continuous and full operation."⁵⁵

This continued to be the main theme with variations in all subsequent discussions on wage adjustments downward.

THE STRIKE OF 1922

What the wage reductions meant to the Amoskeag worker in 1922 is suggested by data in table B-2. The 20-percent reduction brought the index of wage-rate changes down to 163 relative to the wage scale in 1914, while the cost of living in the first quarter of 1922 compared with December 1914 was 165. Thus the gain in the real wage rate during the years 1918-20 was eliminated by two reductions that occurred within a period of 13 months. The return to the 54-hour week meant that the workers had a workweek shortened by only 1 hour since 1914. However the lengthening of the workweek mitigated the severity of a 20-percent wage reduction since they could work $12\frac{1}{2}$ percent longer in a week. As an offset to this must be mentioned the increase in the work load. All things considered then, the Amoskeag worker was fully justified in believing that he was being returned to his pre-war economic position.

Since this position, as we have seen, was not exactly an enviable one and since the benefits of higher wages and shorter hours were a fresh memory, it should occasion no surprise that the workers elected to resist the readjustment. The Amoskeag worker was not alone in this decision. Indeed, in January of that year some 15,000 textile workers in Rhode Island had

⁵⁵*Ibid.*, p. 2.

gone on strike against the 20-percent wage reduction and the return of the 54-hour week. At the very time that the Amoskeag workers were faced with the necessity of making a decision, the textile millworkers employed in the neighboring towns of Nashua, Dover, Newmarket, Somersworth, and Suncook, to name the more important ones, were also confronted with the identical terms of readjustment. In all New Hampshire some 25,000 textile workers were involved. By March the disaffection had spread to Lawrence and Lowell and finally involved about 22,000 workers in Massachusetts, although here no attempt was made to restore the 54-hour week since the 48-hour week for women and children had been enacted by the State legislature in 1921. The textile workers of the region then were faced with a common situation, and in New Hampshire, where about one-quarter of the workers belonged to unions of the United Textile Workers of America, leadership was assumed by the organized workers of Amoskeag.⁵⁶

Close upon the posting of the notice at Amoskeag, the union sought the permission of its national office for a strike vote, and this office delegated James Starr, a UTW vice president, to take charge of the Manchester situation. On February 10, 1922, Mr. Starr appeared before the Amoskeag Adjustment Board, stating

that the management may be advised of the result of a referendum vote to strike taken by the various union operatives in the various crafts throughout the mills.

. . . . Mr. James Starr said he felt that the different operatives had voted without being influenced and that the votes had been tabulated and no official report made previous to this meeting.

The result of the vote according to Mr. Starr, showed that over 99% of the votes cast were in favor of a strike, and that the total number of votes cast exceeded 12,000.

Mr. W. P. Straw, Agent, told the Grievance Committee that he regretted the action taken, but that the management had made the only decision that could be made. He said we must insist upon the reduction in wages and the 54 hour week. To this Mr. Starr answered "If that is the case, the strike will go into effect Monday morning next week."

⁵⁶See Leonard E. Tilden, "New England Textile Strike," *Monthly Labor Review*, Vol. XVI, No. 5 (May 1923), pp. 13-8. For date of enactment of the law establishing a 48-hour workweek for minors and women in Massachusetts, see *Labor Laws of the United States With Decisions of Courts Relating Thereto* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 370, May 1925), p. 614.

Mr. Straw was asked by Mr. L_____ [union representative] just what the necessity was for returning to a 54 hour week. Mr. Straw answered this by saying that he did not feel as though it was necessary to enter into any discussion at this time, as we must all realize that concerns who wish to operate must operate economically. Mr. Straw further stated that he was not prepared at this time to say any more concerning the 54 hour week.⁵⁷

In the face of the strike threat the company announced:

" we shall open the mill gates on next Monday morning with the idea of giving work to those who care to accept the new conditions and who recognize the futility of delay with its consequent loss of wages."⁵⁸

So few operatives passed the picket lines on Monday morning, February 13, that the company was obliged to close the mills "until further notice. Advance notice of their reopening will be duly given."⁵⁹

A detailed account of the strike is unnecessary since the course of its development was much the same as that of most long-drawn-out strikes involving many thousands of workers, that have taken place before and since the Amoskeag strike. Possibly the main departure from type was the virtual absence of violence during the entire 9 months of the strike, although the slightest evidence of physical intimidation was exploited to the full by the union's opponents.

The strikers were the first to make any concessions. On February 28 Thomas F. McMahon, president of the UTW, paid his first official visit to Manchester and in the course of addressing a gathering of operatives remarked:

"We stand ready to arbitrate the matter of wages but we never will arbitrate the hours of labor. . . . In the matter of wages we recognize a material thing but in the matter of hours of labor we see a human principle which we will not sacrifice."⁶⁰

The company, however, refused to compromise on either score, the 20-percent wage reduction or the 54-hour week. In the

⁵⁷"Adjustments," Vol. III, February 10, 1922.

⁵⁸*History of Amoskeag Strike*, p. 4.

⁵⁹There is no evidence whatever for the statement made by Louis Adamic that "something very close to a stay-in occurred in the Amoskeag textile mills, at Manchester, New Hampshire, during a labor difficulty in 1922." *My America, 1928-1938* (New York: Harper & Brothers, 1938), p. 411.

⁶⁰*History of Amoskeag Strike*, p. 9.

succeeding months each side remained adamant despite the multiplicity of committees that offered their services as mediators or arbitrators. Among the first to form themselves into a committee were the members of the local clergy. The mayors of the strike-affected towns also constituted themselves a committee, and there was an aldermanic committee as well as a citizens' committee. The services of the New Hampshire Commissioner of Labor were duly invoked, but he was powerless since the company refused to open negotiations on the terms recommended by him.

In the first month of the strike a solution was sought through having the legislature enact the 48-hour week. This path, however, was blocked by the Governor who, citing the opposition of the grange to the 48-hour bill, refused to convene the legislature in an extra session for such a purpose. The expense of an extra session was also urged by the Governor as an important consideration, although the Manchester delegation had agreed to serve without compensation.⁶¹

Obviously, time was on the side of the company, which could afford to draw upon the tremendous cash surplus accumulated during the war years; it had also the negative assurance of not losing business to its northern competitors since they too were closed down by strikes. In addition, it could fill orders for a month or two from its inventories of finished goods which, while they were of normal volume, were sizable, amounting to about 7 million square yards in the cotton section. This was about 8 percent of the production in the preceding 6 months.

The first break in the strike occurred during the last week in May in the neighboring city of Nashua. On May 26 the Nashua Manufacturing Company was granted an injunction "restraining its striking operatives from picketing, influencing and terrorizing workers and those who may become workers" and thereupon decided to open its mills.⁶² On the very same day Governor Albert O. Brown issued an invitation to the workers, manufacturers, and mayors of the mill towns involved to attend a conference to be held at the State House on May 29.

⁶¹*Ibid.*, pp. 8-9.

⁶²*Ibid.*, pp. 72-3.

There had been no evidence beforehand that either party to the dispute was ready to recede from its original demands. Consequently, it was a foregone conclusion that the Governor's compromise proposal of a 51-hour week and a 10-percent reduction in wages would not be accepted by either group. After noting this failure, the Governor, in his statement issued after the conference, went on to say:

"Then it was suggested that the mills open some one unit of their plant, say a single room or a single mill, to afford employment to former employes who are out on account of the strike and who are needy, in some instances subsisting on charity, and desiring to work. This suggestion was taken under advisement by the manufacturers who will reply later."⁶³

The manufacturers in general and Amoskeag in particular had no need to take the matter under advisement for long. The Governor received Amoskeag's reply within 2 days. The reply follows:

"The Amoskeag Company appreciated the truth of all you have said in regard to the business depression in Manchester, occasioned by the strike, and fully realizes, too, that much suffering is bound to take place among the textile workers if the mills remain closed for a much longer period.

"Although many operatives have already applied for work, and while we have assurances that many more desire to work under the conditions posted in our notices of Feb. 2, yet so completely has our business been demoralized by the strike, that we have at present no orders on our books, and so no work to offer. Indeed, should the entire operating force report at once we could not start the whole Amoskeag plant for many weeks to come and the present loss to Manchester of approximately \$4,500,000 in wages will in all probability be increased to twice this sum before work can be resumed at all.

"We appreciate, however, that a start towards resuming operations must be made at some time, and, with the assurance you make us of protection from intimidation and violence, if any, for all who desire to work, we will at your suggestion open the gates of the Coolidge Mill on Monday morning, June 5. The running time and the rate of wages will be as posted on Feb. 2. There can be no compromise nor deviation from this notice; the provisions incorporated therein are the most favorable the mills can offer.

⁶³*Ibid.*, p. 75.

"If business conditions warrant, and if circumstances are generally satisfactory, other mills will be opened from time to time in order to give those people who desire to work the opportunity to do so. Sufficient notice will be given in advance in each instance.

"We fully appreciate the motives which underlie your suggestion that we open some portion of our plant at the earliest possible moment, and we regret that this small beginning towards resumption is all that we can at present make, is more in fact than business conditions actually warrant."⁶⁴

On the basis of the above facts the strikers claimed "that the calling of the conferences at Concord, Monday, was a prearranged plan and that the governor seemed to side with the corporation'"⁶⁵

The Coolidge Mill was opened on the designated day. On June 7 the company was granted a temporary injunction with powers so sweeping that the strikers were enjoined even from peaceful picketing. When the injunction was made permanent a month later, it was modified so as to allow two pickets to each mill gate.⁶⁶ Some light may be thrown on the relationship between the company and the police department through the semiannual accounts made up for the treasurer's office (the so-called "red books") for the 6 months ending May 20, 1922. The following entry is recorded in the "Division of Contingent Account": "Manchester Police Department \$2,262.50." In the 6 months ending December 2, 1922, this payment amounted to \$691.65. Such entries did not appear in any other year. The mayor of Manchester also cooperated with Amoskeag by making it increasingly difficult for the workers to collect money for the relief of the strikers.⁶⁷

Despite the length of the strike, the workers, while returning in gradually increasing numbers, did not return in numbers sufficiently large to obviate the necessity of hiring strikebreakers. This was admitted by implication by the company upon the conclusion of the strike when it stated that those who were employed at the termination of the strike but not employed at its inception would not be dismissed to make way for returning strikers.⁶⁸

⁶⁴*Ibid.*, pp. 76-7.

⁶⁵*Ibid.*, p. 77.

⁶⁶*Ibid.*, pp. 103, 132.

⁶⁷*Ibid.*, p. 145.

⁶⁸*Ibid.*, pp. 148-9, 170-1.

The strike in the Lawrence mills, where the wage scale was the sole point of contention, was settled on August 23 according to the terms announced by the Citizens' Committee. The workers were to return at the existing scale, and adjustments would be made effective October 2, and at that date retroactive to September 1. In general this would amount to the restoration of the wage scale in effect previous to the reduction of March 27.⁶⁹ This was a real threat to those mills, including Amoskeag, that were experiencing difficulty in attracting a sufficient number of skilled operatives. To aggravate the situation for Amoskeag, nine mills in Maine with about 8,500 employees announced the restoration, effective September 11, of a 25-percent pay cut that had been in effect since February. The 54-hour week was also not an issue here, having continuously been in effect.⁷⁰ Amoskeag, accordingly, had no choice in the matter and on September 10 announced the restoration of the 20-percent wage cut, to be effective the following day.⁷¹

The general wage increases in the industry at this time can be explained by the improved outlook for profitable operations occasioned by the appreciation of raw-material prices. This in turn was caused by the short cotton crops in the two preceding years.⁷²

Since the main point at issue was the 54-hour week, the strikers felt that the wage concession was an insufficient reason for terminating the strike and voted for its continuance. Many, however, regarded the concession as a partial victory and therefore had no compunction about returning to the mill. There can be no doubt that the back-to-work movement gained added momentum at this time. This was realized also by the strike leaders as evidenced by their redoubled efforts to achieve a settlement.

To this end the good offices of the Catholic Bishop of Manchester were used. The terms of his proposed settlement announced at the end of October were acceptable to the strikers but were rejected by Amoskeag. The plan proposed a

⁶⁹Tilden, *op. cit.*, p. 27.

⁷⁰*Ibid.*, p. 29.

⁷¹*History of Amoskeag Strike*, p. 150.

⁷²See Stephen J. Kennedy, *Profits and Losses in Textiles* (New York: Harper & Brothers, 1936), p. 128.

51-hour week until February 1, 1923, when "officials of the Company shall meet representatives of the workers and determine by agreement whether or not economic conditions or other circumstances will warrant the restoration of the forty-eight hour week."⁷³ The settlement also stipulated that in the matter of rehiring, Amoskeag should not exercise any discrimination against employees now on strike.⁷⁴

With the failure of this effort, the workers sought to find out from the company under what conditions the strikers would be reemployed. Aside from the acceptance of the 54-hour week the main conditions were as follows:

"Acceptance of the following principles: In regard to those who may or may not be re-employed, the Amoskeag Company will not take back those now on strike to fill the places of those who are now at work. These workers have been given permanent employment. Subject to this condition all former employees are eligible for re-employment as the mills resume operation without regard to their connection with outside organizations or their activities during the strike. To this general statement, however, there are two exceptions.

"First: Those who may have been guilty of violence or intimidation or of inciting to violence or intimidation.

"Second: Those whose conduct during the strike has been such as to destroy the possibility of maintaining the relation of employer and employee with mutual respect and confidence. There are certain standards of speech and conduct which must be observed if this relationship so essential to harmonious operation and general contentment is to be continued. Happily these standards have not often been violated during this strike and occasions for applying this exception will be few. The rule must, however, be recognized and when circumstances warrant it must be applied. With these exceptions all former employees are eligible for re-employment as the mills resume operations."⁷⁵

The strikers rejected these terms by an overwhelming majority on November 21, and the strike chiefs outlined plans to carry the 48-hour-week fight into the legislature. In the midst of such preparations the strike leader recommended on November 25 that the strike be called off, realizing "that the real

⁷³*History of Amoskeag Strike*, p. 188.

⁷⁴*Ibid.*

⁷⁵*Ibid.*, pp. 174-5.

and permanent victory for the 48-hour work week is not to be won in the offices of the textile corporations but in the legislative halls of the state house.⁷⁶ Although the terms were those which had been rejected in the preceding week, the strikers accepted the recommendations of their strike leaders. In this manner the strike, which had lasted more than 9 months, was terminated.

The termination of the strike also involved the termination of the welfare program. Even before the strike there must have been a growing realization that the program did not pay. It certainly failed to prevent the formation of a trade union. There is even some doubt as to whether it achieved its more restricted purpose of reducing labor turn-over. This cannot be answered with finality, not only because of the abnormal conditions created by the war but also because labor turn-over figures do not exist for the period prior to the inauguration of the welfare program. A report made in the last quarter of 1915 by the employment department claimed that the organization of its department had reduced labor turn-over but made no mention whatever of the welfare program. All of the evidence points to the existence of a high labor turn-over (see appendix E). Whether the turn-over would have been higher without the welfare program cannot be determined. At any rate, the results were not so striking that the company was willing to continue the program after the strike.

For the period just passed in review, it is submitted once more that in broad outline, at least, the effect of Amoskeag's decline after the war boom upon its workers was similar to that in other neighboring textile cities. This is suggested not only by simultaneous changes in wage rates at Amoskeag and at other mills in the region over these years but also by reference to overt labor struggles that occurred at the same time at Amoskeag and at the mills of a number of its competitors in this area.

⁷⁶*Ibid.*, p. 178.

APPENDIX C

EMPLOYMENT CONDITIONS, 1923-32

The years 1922-23 represent more than an arbitrary benchmark in time. Amoskeag's decline set in in earnest with the resumption of operations after the strike of 1922. Although the downward movement in both production and employment is interrupted by short cyclical swings upward, each upswing ends at a lower peak, with the exception of the preliquidation spurt, and the downswings tend to exceed the upswings in amplitude. This is characteristic of cyclical movements imposed upon a secular decline. This pattern was particularly descriptive of the cotton section but less apt for the worsted section, as is disclosed by figure C-1.

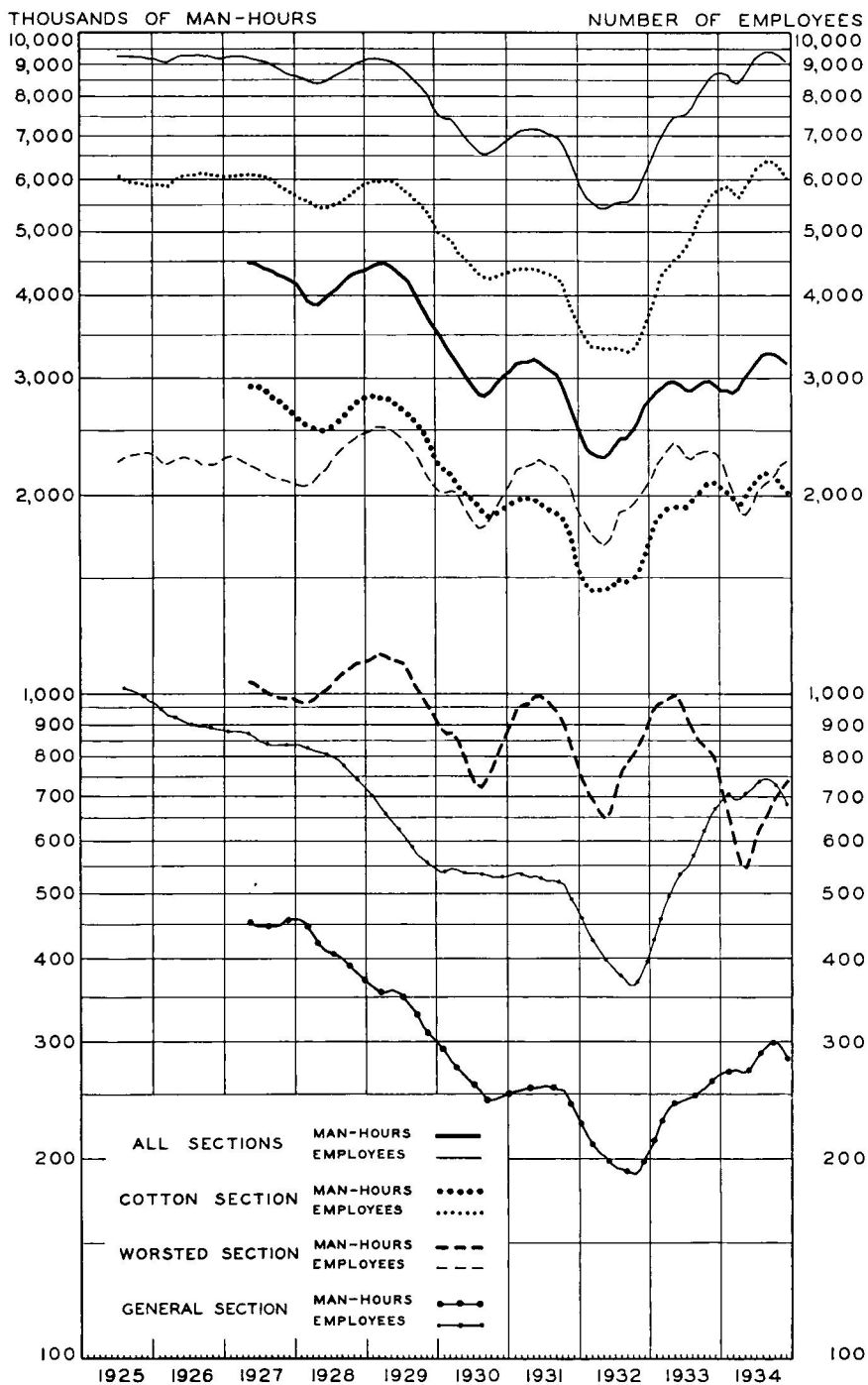
Nor, as chapter III showed, did the financial showing differ from the production and employment record. In this period a profit from manufacturing operations was earned in only 3 years, 1923, 1927, and 1929. The combined profit in these 3 years was \$3,500,000, while the loss in 1924 alone exceeded \$4,000,000. On this basis, too, the cotton section made a poorer showing than the worsted section.

Many in Manchester have claimed that Amoskeag's subsequent difficulties date from the 1922 strike because the company could no longer command the loyalty of its workers. This position seems hardly tenable. Amoskeag had experienced competitive difficulties many years before the strike, and the difficulties had been postponed as well as intensified by the abnormalities created by the war. Since there had been no fundamental change in the structure of the industry during these years, when peacetime operations were resumed the decline was also resumed. Even if there had not been a strike in 1922, the course of subsequent events at Amoskeag in all probability would therefore have been much the same as those that actually came to pass.

It is obvious that the relations between the company and the operatives were not improved by the strike. What is even more important is that this relationship was not the determining

**Figure C-1.- CENTERED 12-MONTH MOVING AVERAGES OF MAN-HOURS
WORKED AND NUMBERS OF PERSONS EMPLOYED,
BY SECTION, 1925-34**

(Ratio scale)



Based on an NRP tabulation of company pay-roll records

WPA - National Research Project

factor in the post-strike developments. This should be abundantly clear from the account of the general and special manufacturing problems that confronted Amoskeag during these years as well as from the story of its financial policy.¹ In this appendix the main concern is to show how the operation of these factors affected employment conditions.

It is shown in appendix B that when the company was faced with adjustments in the depression of 1920-21, its main reliance for cost reduction was upon increasing the work load and lowering the wage rate. To be sure, attempts were made to reduce the overhead costs per unit of output by lengthening the workweek to 54 hours and by curtailing employment in the machinery division by more than one-third. These latter efforts by their very nature soon reached a nonextendable limit, for New Hampshire public opinion would not permit an increase in hours beyond 54 in any week, and some machinists had to be retained to make necessary repairs. Accordingly, when further adjustments were required, the management could suggest only the continuance of the speed-up and wage cuts.

Such a policy, however, would defeat its own purpose if it could not be executed without labor strife. Yet it was painfully evident that the company welfare program did not guarantee peaceable adjustments; nor could bona-fide trade unionism in the company's view qualify as a suitable mechanism. In these circumstances, Amoskeag followed a policy identical with that of other companies that destroyed their war-born trade unions at this time; it attempted to satisfy the workers' demand for collective bargaining and to avoid overt conflicts by establishing a company union.²

From the records resulting from the operation of the company union it is possible to trace some of the effects of Amoskeag's decline and gradual liquidation upon its workers. Although this is our main interest in the company-union records, it cannot be followed without revealing many details of the company union in operation. Accordingly, this appendix involves incidentally a partial analysis of this form of collective bargaining. For this reason, it should be mentioned that the

¹See chapters II and III.

²For a discussion of company unions at this time see *Characteristics of Company Unions, 1935* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 634, 1936), Ch. II, "Developments After the War Period," pp. 19-28.

Amoskeag company union was not typical of many other company unions in this period. It differed in that the workers discussed fundamental problems, such as wage rates, in a forthright manner. This was due in part to the fact that the more militant members of the trade union, which had preceded it, became active in the company union in order to reveal its shortcomings. The activizing of company unions through the participation of trade-union members was not widely encountered until the NRA period.³

INCEPTION OF THE PLAN OF REPRESENTATION

The circumstances surrounding the very inception of the Plan of Representation provide some insight into the character of the employment conditions in 1923. The company in its local newspaper publicity tried to convey the impression that the initial demand for the plan came from the operatives. Thus, according to the *Manchester Union-Leader* (September 16, 1923):

On May 4th a committee of 48 met and discussed a proposition which they felt might result in a better understanding between the management and its employees. Officials of the corporation were consulted and as a direct result, a speaker of prominence was brought to Manchester to present plans of employee representation which are already in successful operation.

Every member of the committee of 48 invited two friends to attend the gathering. The subject appealed to the operatives and immediate steps were taken to adopt a similar plan for the Amoskeag.

In reality the committee of 48 was rounded up by the management, and the membership was composed of those operatives who continued to work during the strike and those who were brought in as strikebreakers. The management then arranged to form an employees' convention made up of 244 delegates elected by the operatives according to department.

Minutes begin with the initial meeting of this convention on May 31, 1923. At this meeting it was proposed by the chairman and accepted by the convention that it elect a committee of 12 to work in conjunction with an equal number representing the management in drawing up a plan of representation of the employees with the management. Even at these preliminary

³*Ibid.*, pp. 193-4.

sessions there was some evidence of dissatisfaction resulting from the strike settlement. According to the minutes, the following resolution was introduced:

. . . to effectually have an organization for the purposes of closer harmony between employer and employees, it is fundamental that the replacement of employees in the former positions be speedily made.

Resolved - that we recommend this action be taken and this committee of twelve be empowered to carry out its provisions.⁴

The convention voted that this resolution be laid on the table until the next meeting, and no mention was made of it thereafter.

By mid-July the committee of 12 reported the Plan of Representation to the delegates. It is difficult to understand why the formulation of the plan required so much time, since, with minor changes, it was the plan used by the International Harvester Company. The delegates accepted the plan with one amendment: "'A decision shall be given on all questions or complaints within ten days from day said question or complaint is received by the committee.'"⁵ The amendment failed to gain the management's acceptance, and the latter persuaded the delegates to accept a more flexible substitute.⁶

Acceptance of the plan by the delegates did not necessarily mean that it would have the approval of the majority of the operatives in the referendum.⁷ Apparently the management realized this and attempted to gain a sympathetic hearing for the plan by having the chairman appoint a committee of 25 to go to the different departments to explain the plan to the workers. This motion was lost, and the delegates decided that they themselves would do the explaining in their respective departments.⁸

The inadequacies of this procedure from the management's viewpoint were soon evident, and within 3 weeks a meeting was called to make other arrangements to "explain and address

⁴Minutes of the Employees' Convention, June 7, 1923.

⁵*Ibid.*, July 19, 1923.

⁶*Ibid.*, August 2, 1923. Subsequent developments amply justified the delegates' fear on this score. Thus at a meeting on July 7, 1925, it was recorded that "questions were asked regarding the grievance that was sent in from No. 11 Cloth Room about two years ago."

⁷To submit a company-union plan to the vote of the workers was an unusual procedure. See *Characteristics of Company Unions, 1835*, pp. 93-8.

⁸Minutes of the Employees' Convention, August 2, 1923.

the workers on the workings of the plan, there being a lot of misunderstanding and propaganda against the plan at present due to one side of plan only being explained and misconstrued."⁹ Accordingly, the joint committee of 24 was empowered to select a list of speakers to explain the plan to the workers. These electioneers were put through at least two dress rehearsals on how to speak to the workers.¹⁰ There were others, however, competing for the workers' vote.

. . . . The United Textile Workers of America are fighting the proposition and organizers of this international union are urging their members to vote "no." Meetings of the unions are being held weekly for the purpose of strengthening the membership and denouncing the plan.¹¹

If this was the true alignment of the forces, the vote on the plan was a victory for the United Textile Workers of America. The cotton section repudiated the plan by a large majority; only one of the five departments favored the plan. In the worsted section the plan was rejected by a small majority of the total workers, although the three smallest among the four departments voted for acceptance. Each of the four departments in the mechanical section, however, voted in favor of the plan by large majorities, and the plan was immediately put into operation in this section.¹² These workers had always been outside the jurisdiction of the UTW.

About a week after the election the company announced that the cotton section, which had been operating only 4 days a week since mid-July, was shut down indefinitely "on account of business conditions." It would appear that some workers regarded this as a punitive measure, for the convention of delegates was convened in order to hear the agent "explain the reasons for the shutdown to the representatives there being a lot of foolish rumors and misunderstanding afloat."¹³ In this connection it is interesting to note that at this early

⁹ *Ibid.*, August 23, 1923.

¹⁰ *Ibid.*, September 17 and 20, 1923.

¹¹ *Manchester Union-Leader*, September 18, 1923.

¹² The workers at Pacific Mills at this time came under the provisions of a company-union plan, but it is not known whether the plan had been submitted to the vote of the workers. Pacific Mills' new plan of employee representation provided the employees "with a means of expressing to the management their opinions on all matters concerning their working conditions" and provided the management "with a means of consulting with the employees on matters of mutual concern." ("Pacific Mills Plan of Employee Representation," *Textile World*, Vol. LXIV, No. 13 [Sept. 29, 1923], p. 33.)

¹³ Minutes of the Employees' Convention, October 5, 1923.

date the loss of markets for gingham was given as the main reason for the shut-down.

This meeting also unanimously voted to allow the worsted delegates to circulate a petition for a revote on the plan and agreed to seek the management's consent to have the cotton delegation remain intact in order to secure a revote. Apparently, the collection of signatures in the presence of the overseers and the existence of part-time employment were sufficient pressures to assure a favorable vote. At any rate, on the second ballot on October 18 the worsted section ratified the plan, as did the cotton section in the following January. This, incidentally, was the technique used throughout the history of the plan. That is, questions were resubmitted for vote until a decision favorable to the management was secured. It is clear from the manner of its inauguration that there was no widespread sentiment for the company union and that it was virtually forced upon the workers.

STRUCTURAL ORGANIZATION OF THE PLAN OF REPRESENTATION

To appreciate the sort of record that would be provided by the minutes of the company-union meetings, it is necessary to have some familiarity with the formal purpose and structure of the plan. The essence of any such plan is to create the semblance, with or without the reality, of democratic participation of the employees in the management of labor relations. Accordingly, the preamble to the Plan of Representation¹⁴ states that its purpose is

to give the Employees of the Company a voice in regard to the conditions under which they work, and to provide an orderly and expeditious procedure for the prevention and adjustment of differences which may arise. . . . This Representation of Employees . . . shall in no way abridge or conflict with the right of Employees to belong to labor unions.

This voice, however, was to be well modulated since

the Committees to be established are for the purpose of assisting the Management in making its decisions with due regard to the point of view of the Employees. When the policy of the Company as to any of these matters has been settled, its execution shall remain with the Management, but the manner of

¹⁴Issued by the company in bulletin form, with the rules adopted by the General Joint Committee on Routine, Procedure, and Elections, April 1, 1924.

that execution may at any time be a subject for the consideration of the Joint Committees.

Moreover, Rule 19 stated:

A finding of any Joint Committee which is not consistent with the established practices of the Company, shall be interpreted only as a recommendation to the Management, and is not binding unless approved by the Management.

Among the subjects proscribed for negotiations was *shortage of work*. Rule 21 provided:

When there is not sufficient work in any department to keep the entire force for the full working week, it is a function of the Management to determine whether the hours or the force should be reduced or whether the work should be rotated.

It is the duty and right of the Overseer to make the necessary changes in such a way as to maintain the efficiency of the work and he will select for transfer, lay-off or discharge such employees as he may consider can best be spared from the job.

Every effort will be made to avoid hardship to the individual and full consideration will be given to length of service, private circumstances, etc., but usually the determining factor must be the permanent efficiency of the job as determined by those in charge of the work. In case of reduction in force, employees have the right to appeal to the Joint Departmental Committee against the transfer, lay-off or discharge.

There can be little doubt then that the plan was not calculated to give any real power to the operatives. The semblance of a grant of power was created by the hierarchy of committees, mainly to handle grievances. All committees were originally joint committees, meaning that the workers and the management had equal representation, voice, and voting power in all matters coming before the committee. The employee representatives (who had to be employed at Amoskeag) were elected by all the workers, with unimportant exceptions, by secret ballot, and the employer representatives were appointed by the management.

The hierarchy in ascending order was composed of joint departmental committees, joint sectional committees on adjustment (one each in the cotton, worsted, and mechanical sections), and three general joint committees: one on Routine, Procedure, and Elections, one on Safety and Health, and one

on Production Methods and Economy. In addition, a general joint council composed of representatives to the three joint sectional committees could be called together at any time by the management, or at the request of a majority of the employee representatives on the joint sectional committees, to consider matters of common interest to all employees of the plant. In 1930 the general joint council was replaced by a general employees' council. Provision was also made for the semiannual meeting of all employee representatives in convention and for a joint annual banquet. The Employees' Council came to be the executive committee of the convention. Thus eventually the plan combined both types of representation, joint committee and employee committee.¹⁵ In accordance with usual company-union practice of that period, the workers paid no dues and were compensated for the time devoted to committee work.

In handling grievances, the employee representatives in each department first referred the matter to the overseer. If the plaintiff was not satisfied with the overseer's decision, the plaintiff could ask that it be presented to the joint departmental committee. Pending the decision of any committee, the employee had to abide by the instructions he was protesting; otherwise his right to appeal was forfeited. From the joint departmental committee, the matter went to the departmental superintendent, from him to a joint sectional committee on adjustment, and from there to the agent. The matter was considered settled if a unanimous decision was given by any of these committees. A question of a general wage reduction, however, was laid before the Joint Convention of Employee Representatives who could call for a referendum of all operatives. As the evidence will show, the management was not bound to respect and, indeed, on occasion did not respect the decisions of the convention or of the referenda.

The limitations of power were not the sole drawbacks to genuine collective bargaining. Even within the restricted framework the potentialities of the plan could not be realized through a procedure of joint committees. The operatives obviously are not free agents in the presence of their superiors. It requires rare courage to oppose the management

¹⁵For a discussion of types of representation see *Characteristics of Company Unions, 1935*, pp. 130-2.

when to do so exposes one, if not to loss of job, at least to discrimination. It is reported, moreover, that the management exploited this source of coercion. For example, the management representatives on the various committees were not appointed until the operatives had elected their representatives. By this procedure the management could checkmate the employee representatives by appointing their respective superiors to the same committee. For this reason the frankest discussion took place in the combined convention of all employee representatives. The plan, of course, gave verbal assurances of protection to the operatives; thus the section on "Protection of Representatives" stated:

The Management and the Employees expect that each Representative will discharge his duties in an independent manner without fear that his individual relations with the Management may be affected in the least degree by any actions taken by him in good faith, in his Representative capacity. To insure each Representative of his right to such independent action, he may take the question of whether his relations with the Management have been adversely affected, on account of his acts in his Representative capacity, direct to the Agent, and if the decision of the Agent is not satisfactory to him, then to have the question settled by an arbitrator, selected by mutual agreement.

A summary tabulation of grievance cases that were docketed, that is, came before a joint committee for adjustment, indicates its limited scope in this respect.¹⁶ Over the 9 years during which the plan was in effect, there are records of only 200 docketed cases. Of this number, 77 cases (38.5 percent) were decided in favor of the employees and 123 against them. Table C-1, showing decisions classified according to nature of complaint, is informative.

From the operatives' point of view, favorable decisions exceeded the unfavorable ones only in the relatively unimportant features of working conditions. Indeed, these accounted for 27 percent of all favorable decisions, while complaints of this nature represented only 16.5 percent of the total of 200. Only from one-fourth to one-third of the complaints involving individual wage adjustments, alleged discrimination in discharges,

¹⁶How many complaints were settled by the overseer upon presentation by an employee representative cannot be determined.

lay-offs, or transfers, or increasing the work load were decided in the workers' favor. In the light of this, one wonders whether it was insight into the real workings of the plan or limited command of the language which caused the French-Canadian secretary of the Joint Departmental Committee for Picking and Carding to record in the minutes "that the complaint be refer back for a better misunderstanding."¹⁷

**Table C-1.- NUMBER OF DOCKETED COMPLAINTS, BY DECISION
AND NATURE OF COMPLAINT^a**

Nature of complaint	Total cases	Number decided -	
		For employees	Against employees
Total	200	77	123
Specific wage rates and hours	87	32	55
Discharges, lay-offs, and transfers	49	16	33
Stretch-out	31	8	23
Other working conditions	33	21	12

^aAllocation of a decision in favor of or against employees was based on the authors' understanding of the complaint and the nature of the ruling. All complaints, 1923-32, are included.

Impressive as was the record of decisions for the management, there were still other benefits that it derived from the plan. Chief among these was securing general wage reductions and increasing the work load with the minimum of friction and sometimes even creating the guise of voluntary acceptance. It is of interest for other reasons, however, to note the discussion between the management and employee representatives that centered about the proposals for wage reductions. Each such proposal may be taken to represent a crisis in Amoskeag's operations. From the management's remarks at these moments it is possible to learn what it considered the reasons for its decline, and from the discussions of the operatives may be discerned the hopelessness of their position and their reasons for increasing dissatisfaction and bitterness. All this must be interpreted against the background of the earnings record and financial changes.

¹⁷Under date of September 22, 1927.

THE PLAN IN OPERATION

Wage Negotiations, 1923-24

In April 1923 Amoskeag followed the lead of other textile mills in the region and raised wages by $12\frac{1}{2}$ percent.¹⁸ Earnings from manufacturing operations in the fiscal year ending November 30, 1923, were fair, amounting to some \$1,318,000, but they were nevertheless too little by some \$168,000 to meet dividend disbursements. In the following fiscal year, however, Amoskeag sustained a loss from manufacturing operations (before dividend payments) of \$4,100,000, the largest loss in 1 year in its entire history. Dividends of more than \$1,200,000 were paid nonetheless, although the usual 75-cent dividend on common stock payable at the end of the year was omitted. The pressure to reduce costs was clear. Increase of the work load, colloquially referred to as "doubling up", had been going on apace to judge by the remarks of the operatives. Apparently this alone did not provide the requisite margins, and in September 1924 the workers, through the Joint Convention of Employee Representatives, were asked to accept a 20-percent reduction in wages.

The chairman of the convention "call[ed] on each member to give his opinion of the suggestion of Mr. Straw [the agent] that the employees take a reduction in wages in order to stimulate business and allow the company to compete with other mills in other sections of the country."¹⁹ The representatives were unanimous in their opposition to a 20-percent reduction. While some were willing to accept a smaller reduction, most of them felt that a reduction had already been imposed upon them by virtue of the increase in their job assignments. That this position was widely held can be seen from a sampling of the representatives' remarks.

Loom fixers delegate asks that in view of the fact that they have been given more work already, why should they be asked to take a reduction in wages.

Spinning delegate states spinners absolutely against a cut. Doubled up already.

Card room delegate states workers he represents are cut already in the form of work being doubled on them; therefore would refuse any more reduction in wages.

¹⁸"Wage Advances by Textile Mills," *Textile World*, Vol. LXIII, No. 13 (Mar. 31, 1923), p. 35.

¹⁹Minutes of the Joint Convention of Employee Representatives, September 16, 1924.

No. 11 Weave delegate states they would consider small cut if it is necessary, but would refuse to run any more looms than at present.

Winders and Twisters delegate states they are already doubled up on work and refuse to accept a cut in wages.²⁰

A few of the broader aspects of the proposal were grasped by some of the representatives. For example:

Delegate [from mechanical section] asks how we would look to the rest of the workers of New England States if we accept a cut thereby setting a precedent which would be followed by other mills who would also reduce wages in order to compete with the Amoskeag, the Amoskeag already having the advantage of 54 hour work week.

Delegate requests that the 48 hour week be brought into the question with a small cut.²¹

A delegate from the foundry department realized that the acceptance of a reduction did not make for a stable situation. He

asked if the company was honest with the workers in view of a previous statement . . . that if given a 54 hour working schedule, the company could compete with any mill, and are now asking for a 20% reduction for same reason. Delegate also asked where and when this cutting to compete with the South and cutting to compete with the North was to end and what would be done if in accepting this cut of 20% the South came back with another cut in order to compete with the North and where we would get off.²²

Despite open and widespread hostility, the convention voted to accept a reduction of 5 percent. Upon notification by a committee, Mr. Straw, the agent,

stated that 5% would be useless as it meant less than $\frac{1}{3}$ of a cent on a yard of cloth. Mr. Straw suggested that [a] 20% reduction would be necessary to get the best results in the market . . . [He] explained that the condition of the market was such that it was not advisable to produce cloth for future

²⁰*Ibid.*

²¹*Ibid.* The campaign for the enactment of the 48-hour bill, after the termination of the strike, had been unsuccessful. The bill had been passed by the New Hampshire House but defeated by the Senate. ("N. H. House Passes 48-Hour Bill," *Textile World*, Vol. LXIII, No. 7 [Feb. 17, 1923], p. 43.) In an article entitled "Protests Against 48-Hour Law," *Textile World*, Vol. LXIII, No. 6 (Feb. 10, 1923), p. 18, it was noted that W. Parker Straw, agent of the Amoskeag Manufacturing Company, had presented a case against the proposed 48-hour law before the House Labor Committee of the New Hampshire Legislature.

²²Minutes of the Joint Convention of Employee Representatives, September 16, 1924.

orders. . . . [However] Mr. Straw would accept the next offer as the final offer.²³

The convention thereupon voted to accept a 10-percent reduction, after having unanimously rejected the proposal for a 15-percent cut. A member of the committee, notifying the agent of this decision,

mentioned to Mr. Straw what a great thing it would be to have 14,000 boosters for the company and told him that if the workers were given a 48 hour week he would have them boosters as that was their only real grievance. Mr. Straw stated he could assure nothing definite on the 48 hour question excepting that probably something might be done around April next year.²⁴

Additional evidence of interest in this lost cause was the motion made to inform the gubernatorial candidates in the coming election on the position of the Amoskeag workers on the 48-hour week. The motion, however, was withdrawn "on the advice that we should not meddle in politics as a body from here" - doubtless a cardinal principle of company unionism unless the company union was to be a mouthpiece for management's political views.

The 10-percent reduction, however, was not put into effect at this time. At the end of October the agent again convened the Joint Convention of Employee Representatives to explain that

the Company not having reduced prices of their goods at their recent opening, owing to the rise in price of raw cotton, . . . wanted to be fair and square with the workers and therefore did not put the reduction in effect. Mr. Straw stated that at their recent opening less than 1,000 cases of goods were sold when it should have been 20,000 cases; our competitors having gotten the orders owing to their lower prices; and that since then, cancellations in orders had been made so that, generally speaking, the Company did not have an order on hand. He stated that after talking the situation over with their big customers and selling agents, it was decided that the 10% reduction, coupled with the loss the Company was willing to stand, would be of no use, and that not another yard of cloth could be sold at those prices. He stated that the Company is not out to reduce wages but to get business and that the 10% reduction if put into effect, coupled

²³*Ibid.*, September 17, 1924.

²⁴*Ibid.*

with three-quarters of a million dollars which the officials set as a limit of loss they are willing to stand and still operate the mills, would not reduce prices low enough to beat competitors and get the business. This situation, he stated, had made it wholly unwise to put the reduction in[to] effect; and to be fair with the workers it was not put in[to] effect. Mr. Straw stated that in order to break even under present conditions, the expenses of the Company would have to be reduced 33 $\frac{1}{3}$ %, but that the Company does not intend nor expect the workers to stand all this reduction; the Company being willing to stand part of it themselves. Mr. Straw stated he thought that if the representatives had accepted the 20% reduction requested as being necessary at the last Convention the mills would now be in reasonably full operation, but that he does not criticize our action as it was left to our own decision to settle our destiny at that time; and that this present situation would be settled again by us.²⁵

The representatives, however, refused to be stampeded into further concessions and again offered to accept only a 10-percent reduction until April 1925 - and this after a much-heated discussion which indicated that members of the UTW had succeeded in having themselves elected company-union representatives. Even the animosities of the Civil War days were invoked.

A delegate stated that it was known all over the country that Amoskeag goods were not union made, and that owing to the strike they were being boycotted. Stated that we should be allowed to join the unions, get the union label on the goods and they would sell and lift the boycott. This would beat the South as they were before in 1861.

A noisy reception and cheering and shouts of "eight hours" greeted the remarks of the delegate above.²⁶

Within a year of its inception, the elected representatives were questioning the value of the plan. One delegate rose to ask "what benefits we have gotten under the Plan of Representation; also that for co-operation,- so far we have received a cut for our end of it and doubling up of work but nothing in return."²⁷ One delegate made so bold as to request the resignation of the treasurer and active officer of

²⁵*Ibid.*, October 28, 1924.

²⁶*Ibid.*

²⁷*Ibid.*

Amoskeag, since "he is to blame for present conditions." Such outspoken sentiments are not usually associated with company unionism.

The agent accepted the decision of the convention but with an expression of "sorrow for the action we had taken."

A week prior to the expiration of the agreement on April 1, 1925, the employee representatives again met in convention to hear the agent on the state of the industry and of Amoskeag.

[He] stated that our past action of co-operating with the management was commendable, and that unless we wished to stop things immediately and bring disaster to the present activity, it is necessary to keep wages as they are at present . . . for the next six months. He was sorry that his message could not be a happier one, but that he thought Manchester conditions were better than many places, and better and busier times were coming.²⁸

After losing a motion to restore wages to the level prior to the 10-percent reduction of October 1924, the convention agreed to a continuance of the cut for another 3 months. This, the agent said,

could not be considered as the time it takes to get orders, manufacture them, and deliver them was about this length. That six months was short enough as it is to allow the Company to do business. Nine months would be better.²⁹

The convention thereupon agreed to an extension of the reduction for another 6 months.³⁰

Better and busier times, however, were more than slow in putting in an appearance. The trustees of Amoskeag, moreover, seemingly disagreed with the agent since they believed that the chances for the return of such times were very slim indeed and acted on this assumption; for it was at this time that the trustees and stockholders decided to segregate the cash assets from the manufacturing assets by the organization of another corporation. This was the first unequivocal evidence of a deliberate policy of liquidation.

²⁸*Ibid.*, March 24, 1925.

²⁹*Ibid.*

³⁰In the matter of this wage reduction Amoskeag was apparently the initiator. Not until July 1925 did the American Woolen Company and other Lawrence and New England woolens announce a 10-percent wage cut. "American Reduces Wages," *Textile World*, Vol. LXVIII, No. 4 (July 25, 1925), p. 28.

Wage Negotiations, 1925-27

While the fact of reorganization was known to the Amoskeag operatives, there is no evidence that they appreciated the implications of the financial and corporate transactions. No effort was made to explain the significance of the altered situation when the agent appeared before the Joint Convention of Employee Representatives on September 19, 1925. His remarks were restricted to the state of the textile market, and he suggested that there be "no further reduction in wages and the agreement continue for another six months ending April 1, 1926; and would advocate no reduction until all other resources were exhausted." What was required was "individual productivity and cooperation with the management in their policy of putting the Amoskeag Manufacturing Company in the front as a manufacturing concern - cooperation and enthusiasm should be the keynote for the coming year."

The convention acceded to the request of the agent but only after rejecting by a small majority a motion to ask for the restoration of the wage scale in effect prior to the 10-percent cut. In the course of the discussion "one very interesting point was raised: by the doubling up of work has the operative received a larger cut than 10%?"³¹ This query went unanswered.

The problem of individual productivity or "doubling up" doubtless continued to receive attention, but there is much evidence to indicate that there was no "cooperation or enthusiasm", in large part owing to the frictions engendered by the company's attempts to increase individual productivity. Time studies were very often the basis for increasing the work load. Accordingly, it seemed reasonable to the operatives that an employee representative should accompany the management representative making time studies. After negotiations with the management, which extended from October 1925 to August 1926, this permission was refused, although the company expressed itself as willing at any time to have a time study made at the request of an employee representative.³²

During these months there appears to have been a particular lack of the kind of cooperation envisaged by the preamble to the Plan of Representation. For example, it was reported to the

³¹Minutes of the Joint Convention of Employee Representatives, September 21, 1925.

³²Minutes of the Joint Sectional Committee of the Cotton Section, August 3, 1926.

Joint Sectional Committee of the Cotton Section that discrimination was being carried on against employees who served as employee representatives in two different departments.³³ The adjustment procedure was so cumbersome that it also was a source of dissatisfaction. Thus, after waiting 4 weeks for action on a complaint, one weave room in January 1926 walked out and another weave room stopped work - another unusual occurrence under a company-union plan. The management settled directly with the aggrieved weavers instead of referring the matter to the appropriate committees provided for by the plan. Two months later the employee representatives of the cotton section adopted a resolution condemning both sides for indulging in irregular procedures.³⁴

The agent, committed against further wage reductions until other possibilities of lowering costs had been exhausted, apparently was permitted to explore only one possibility, namely the speed-up. Presumably this possibility had not yet been exhausted when the agent again met with the Joint Convention of Employee Representatives 2 weeks prior to the expiration of the 6 months' agreement. He remarked:

"These conditions cannot go on indefinitely and the Company must get more goods at the present rate of wages or reduce the cost of manufacturing. Every employee must do a good day's work, - yes and a big day's work. It is not from choice, but the grim necessity of the moment that the employee has to do more work. I cannot recommend the present wage scale to the shareholders of this corporation. I would advise that the present wage agreement continue until Oct. 1, 1926."³⁵

This further extension of 6 months was accepted by the convention with an amendment stating that "if conditions warrant an increase and other concerns raise wages, the Amoskeag will do likewise."

Relation of Special Difficulties to Profitable Operations.- To reduce costs by modernization of equipment was precluded by the action of the trustees. Thus the agent admitted to this convention that "the cotton section is developing some, but not as much as I would like; as with modern machinery

³³*Ibid.*, December 1, 1925.

³⁴*Ibid.*, March 2, 1926.

³⁵Minutes of the Joint Convention of Employee Representatives, March 15, 1926.

we could do better.'" An order from the Ford Motor Company was lost because "' we have not the machinery to make their new line.'" Nonetheless, "'the trustees cannot recommend the purchase of new machinery with conditions such as exist today.'"³⁶

Serious as this handicap was, the company was to sustain further impairment of its competitive position through the deterioration of the existing plant resulting from additional curtailment in the mechanical section. The agent reported:

"I have not a very bright word for the Mechanical Section. The curtailment is most unfortunate. We are simply going to get along without the things we have always had. The physical condition of the buildings and plant are [sic] the result of the skilled help in keeping them so; and from now on we are not going to do entirely what ought to be done."³⁷

For this reason the weekly average number employed in the mechanical and clerical occupations (general section) was reduced from 1,022 in 1925 to 903 in 1926, with annual reductions thereafter until 1932 when the average was 386.

A new development that added to the difficulties of operation was mentioned for the first time at this convention. The agent complained that the merchant "'waits until he really needs the goods before ordering and we have to rush out the work. If the goods are not delivered in time, the merchant cancels his order.'"³⁸ Six months later he observed that "styles change too rapidly to sell in large quantities or to stock ahead."³⁹ It was these correlative policies on the part of customers that largely accounted for the intermittent operations. What this meant in terms of employment and earnings is discussed in appendix E.

In view of all this, "the company's intention to start 50 to 100 on staple gingham to try and revive the market" appears as a pathetic hope that a onetime winner in the past would repeat its success.

Further Cost Reduction Through Speed-up and Wage Cuts.— On reconsideration of the situation 6 months later the emphasis

³⁶*Ibid.*

³⁷*Ibid.*

³⁸*Ibid.*

³⁹*Ibid.*, September 29, 1926.

was still on cost reduction through the speed-up and wage cuts. Although the agent was willing to continue the same rate of wages, he sought to obtain specific rate reductions through a scheme of reservation rates, a system used in the shoe factories of Haverhill, Massachusetts. In the agent's words:

"In case it develops, as it did some years or more ago, that we have an opportunity to take a large order at a price below that which we feel we can afford to sell it for, I propose to state the facts to the Joint Council [of Employee Representatives], showing them the exact cost of production, and if their consent is obtained, to put up to the people interested the opportunity of producing that particular order of goods at a price which will show this Company no loss. It may involve a decrease in wages on that special order, or an increase in productivity, or a combination of both. If the proposition is agreed to we will take the order; if it is not agreed to by a majority of those affected, we will not take the order."

. . . . The definite rejection of this proposal can do no good: its acceptance, which to my mind is already established by precedent, may at some time be helpful.⁴⁰

This proposal was twice rejected by the convention. After voting to demand a 10-percent increase in the wage rate, the convention extended the current wage scale for another 6 months on the receipt of information from the agent "that his superiors would shut down the plant immediately if the 10% increase was sustained."⁴¹

It is interesting to note that there is no longer any mention of the 8-hour day. Apparently, this was definitely regarded as a lost cause. That the physical condition of the plant and equipment was still a problem may be inferred from the agent's announcement to this convention that "he was preparing a paper to submit to those higher up, that they were going too far in economizing in this section"⁴²

It is little wonder then that Amoskeag, or at least its cotton section, was still operating at a loss. In the calendar year of 1926 the cotton section sustained an operating loss of \$2,900,000, while the worsted section earned a profit of

⁴⁰From a letter from Mr. Straw (under date of September 28, 1926) to the chairman of the Joint Convention of Employee Representatives. Letter was incorporated in the minutes of a meeting of this group on September 29, 1926.

⁴¹*Ibid.*

⁴²Minutes of the Joint Convention of Employee Representatives, September 22, 1926.

\$638,000. In this year dividends were not paid on even the preferred shares. It should be remembered, however, that the entire textile industry in this year was in the depression phase of the cycle.

Although recovery was evident in the first few months of the following year, nevertheless there was a noticeable stiffening in the management's attitude. The theme remained unchanged: "Every known economy must be instituted, and it will continue to be the aim of the management to see that a high state of individual productivity is maintained, and, when possible, increased." Changes in specific rates were still sought, but this time with a difference. The convention was bluntly informed by the agent that such changes would be made instead of the convention's being requested to agree to such an arrangement, which had been the procedure 6 months earlier. The convention was notified by the agent that

" . . . the management is not contemplating any general change in the wage rates now in effect, but it must be recognized as our right to make corrections where earnings are beyond their class basis, or where economies can reasonably be made without injustice to the individuals affected. Happily, these instances are few, and affect few people. On the other hand, where people are requested to do a greater amount of work, additional compensation will, in some instances where the facts warrant, be paid. This policy is already in evidence in one of our mills, if not in more.

"I have outlined to you briefly the general plan of future operation. It is bound to involve some change of work, and in a few instances, as I have just said, changes in rates. It is for these reasons, and in order that there may be no possible ground for accusation of bad faith on the part of the management, that a general wage agreement, such as we have had for the last few years, does not seem advisable at this time. I suggest that action of any kind be simply indefinitely postponed."⁴³

Since the operatives rightly interpreted this procedure as a repudiation of the plan, the convention voted to have a committee appointed "to wait on the Agent, inasmuch as they do not recognize the convention to discontinue the Plan."⁴⁴ The committee's instructions were later amended to those of negotiating and referring back to the convention. The occasion

⁴³Ibid., March 30, 1927.

⁴⁴Ibid.

was used to air their accumulated grievances before the agent. The minor ones, such as the improvement of drinking-water conditions, the agent promised to correct. He was also willing to have the wage agreement continue. In view of these promises the convention decided to "accept the conditions that exist at present for another six months."⁴⁵ This meant, of course, that there would be specific wage changes. If there were any operatives who regarded the plan as a genuine agency for collective bargaining, they must have been completely disillusioned by this episode. One representative to this convention voiced a widespread suspicion in his remark that the management must be getting something out of the plan if it was willing to pay \$200 per month to keep it in operation.⁴⁶ After this, negotiations took on a considerably more acrimonious tone.

The Bond Issue and Another Wage Cut.— Before the expiration of this agreement, the stockholders had authorized the trustees, "if they deem it wise, to liquidate in their discretion, the whole, or any part, of the assets of your company, upon such terms and conditions as they deem for the best interests of the shareholders" (chapter III). When the Amoskeag workers or their representatives met in convention 1 week after the above-mentioned meeting of the shareholders, they apparently did not fully appreciate the authorization given to the trustees of the Amoskeag Company. The agent

spoke on the general condition of the textile industry, especially the crisis that the Amoskeag [Manufacturing] Co. was passing through at the present time, and congratulated the employees of the Amoskeag for their earnest endeavor to help out the situation by accepting additional work.

The process of liquidation was gone into by Mr. Straw, and he . . . cited instances of New England mills that had liquidated in the last year or so; the Hamilton, Everett, Lyman and Somersworth. . . . He mentioned Mr. Carrington's offer of 42 million dollars for the stock of Amoskeag. Liquidating of the Amoskeag Mills would be a severe blow to the city of Manchester and the State of New Hampshire, so something has to be done to keep these mills running. The reduction of taxes by the city has

⁴⁵*Ibid.*, April 13, 1927.

⁴⁶*Ibid.*

helped some, but not enough to pay the common stockholders their dividends.⁴⁷

The convention postponed action on the wage question for 6 months. Before adjournment, however, the chairman of the convention "gave a very able talk on the recent offer from outside interests for the Amoskeag Plant" and moved "that we give the trustees a vote of thanks and confidence for their action in rejecting the Carrington offer." That the motion was unanimously carried can be explained by the fact that apparently neither the agent nor the chairman explained that the trustees had been authorized to liquidate at their discretion.

The trustees deemed it wise to carry liquidation a step further at once, and to this end \$8,000,000 in cash was withdrawn from the manufacturing company and the equities represented by preferred stock were exchanged for a creditors' lien represented by 6-percent bonds (see chapter III).

The 10-percent wage cut announced on December 13, 1927, though not a formal provision of the plan of reorganization, was a very logical next step. Despite the agreement made 2 months earlier at a regular meeting of the Joint Convention of Employee Representatives to shelve the wage question for another 6 months and despite the fact that in the calendar year 1927 the cotton section earned \$443,919 and the worsted section \$862,906, the agent told a special meeting of the convention that "a reduction in salaries and wages was imperative at this time."⁴⁸

The agent went on to explain:

"If the Amoskeag Manufacturing Company is to compete with other textile concerns the cost of manufacture must be lowered. . . . Some months past, a certain Mr. Carrington made an offer for the Amoskeag Manufacturing Company which stirred up quite a cry from the common stockholders to sell the plant. A plan of reorganization was put into effect whereby the common stockholders would receive \$52.00 in cash, a \$40.00 6% bond and one share of stock in the Amoskeag Manufacturing Company which is selling at about \$21.00.

"The Amoskeag finds itself today in the position that it has a definite obligation to meet the interest charges on the 6% bonds which amount to \$880,000 a year and this is the only way to satisfy the shareholders, and not only that, if the interest is

⁴⁷Ibid., October 13, 1927.

⁴⁸Ibid., December 13, 1927.

not paid to the bondholders they can recover the amount of their bonds by having the plant sold."⁴⁹

To ameliorate the effect of the wage reduction "'we are going to reduce the rents in the corporation houses and hope that others in the city will do the same.'"⁵⁰ In his view, another offsetting consideration was the speed-up. The agent "'pointed out that weavers, spinners and card room help were earning almost as much now as before the reduction in 1924. Weavers 98%, card room help 97.9%, spinners 95.6%.'"⁵¹ That is, since there had been a general wage reduction of 10 percent in 1924, this was tantamount to saying that the work load had been increased by about 10 percent. Moreover, the agent promised a continuation of the management's considerate policy in this respect, although he was lost for an answer when a delegate reminded him that even this questionable procedure did not help those paid on an hourly rate. As to the speed-up, he remarked:

"I am glad that those people have got back so much, but it is by working harder. The management has put the work up so as to enable the operative to get so much back. It is my definite opinion that in time to come you will be able to gain more back than in the last four years."⁵²

One delegate observed that "'the 10 per cent reduction in wages will pay the interest charges on the 6 per cent bond issue.'" To this the agent only replied, "'It happens that is so'" Because this point had already been made, the agent, when asked by another delegate "if the 10% reduction would be passed on to the buyers of Amoskeag goods", was forced into the statement "that there is never any relationship between reduction in wages and selling prices."⁵³

The treasurer, however, gave a different view when he was asked this question by the same delegate at the Fourth Annual Convention in April 1928.

Mr. Dumaine went into considerable detail in answering and explained the necessity of giving the shareholders a part of the accumulated earnings in order that the considerable surplus should cease to become a target for Wall Street interests, explaining that so long as the market value of the stock was so much less than the net quick capital, the New York

⁴⁹*Ibid.*

⁵⁰*Ibid.*

⁵¹*Ibid.*

⁵²*Ibid.*

⁵³*Ibid.*

interests might gain control and force liquidation at a profit to themselves. But, having distributed the surplus to the shareholders, retaining only a proper amount to run the business, it simply meant that the company having issued bonds to that amount, were only borrowing from the bondholders rather than from the banks and on fully as satisfactory terms. He maintained there was no connection between the wage reduction and the interest on bonds issued.⁵⁴

The specious character of this explanation is apparent from the above recital of events. Obviously, if the sole consideration was to prevent control from falling to Wall Street interests, this could have been prevented merely by the purchase of stock sufficient to retain control. It did not require redemption of the preferred shares. Moreover, bank borrowings are usually used for circulating capital, and since Mr. Dumaine saw to it that there was "a proper amount to run the business", there should have been no necessity to borrow from the banks. Aside from the fact that an adequate amount of capital did not remain with the business, the money borrowed from the bondholders was not used by the Amoskeag Manufacturing Company but was turned over entirely to the Amoskeag Company and the former owners of the Parkhill Company. Thus Mr. Dumaine was plainly in error when he insisted that costs of manufacture were not increased by the amount of the interest on the bonds.

The management, however, was not to be deterred by embarrassing questions from seeking the wage reduction. It was evident that the reduction was to go into effect regardless of the action of the convention. Nevertheless, the convention voted to "'go on record at this time as being opposed to any reduction in the wage rate and suggesting a curtailment of production in line with other New England mills.'" ⁵⁵

Upon being notified, the agent repeated the management's position: "'It did not matter what action this convention took; the wage reduction would go into effect Dec. 24, 1927.'" ⁵⁶

⁵⁴Minutes of the Fourth Annual Convention, April 21, 1928.

⁵⁵Minutes of the Joint Convention of Employee Representatives, December 14, 1927.

⁵⁶*Ibid.*, December 15, 1927. It seems that Amoskeag again took the initiative in imposing a wage reduction. At any rate, the *Textile World*, Vol. LXXII, No. 26 (Dec. 17, 1927), p. 34, reported that New Bedford mill executives were against any wage cut "either at the present time or in the near future. . . . If any reduction . . . takes place . . . it will be owing to similar action having been taken in other large centers" On April 14, 1928, the *Textile World* (Vol. LXXIII, No. 15, p. 44) noted that 27 New Bedford mills had announced a 10-percent wage cut (effective April 16), following reductions throughout the rest of New England in the previous winter. This precipitated a strike which was not settled until the following October.

The convention also reaffirmed its action of the previous day. Again there was "considerable discussion relative to continuing the Plan of Representation. Many delegates spoke for and against [continuing] it."⁵⁷

When it was pressed by a delegate at the Fourth Annual Convention that "employees not having agreed to a reduction, the management had no right under the plan to enforce it Mr. Straw [the agent] stated he had no such conception of the plan or the management's obligations under it. The reduction was imperative. . . . He felt sure that in reducing wages 10% the plan had not been violated."⁵⁸

Wage Negotiations, 1928-32

Chastened by the management's repudiation of the convention in putting into effect the wage cut of December 1927, the convention continued to see fit to respect the management's request, that is, to postpone indefinitely any suggestion of a wage agreement.⁵⁹

Mr. Dumaine explained that the uncertainties of the market precluded any agreement.

"If he [the questioner] were running the mills, would he not want to know what the market was going to be for the six months period in order that he might be reasonably sure of disposing of his product at prices which would enable him to pay the wages? The Treasurer stated he would not object to a six months agreement if he could be sure the market would hold and goods sold at a profit; but if after making an agreement the market fell off, the mills would have to stop or suffer serious losses in operation."⁶⁰

This was the situation until December 1928. In the interim, the operatives were restricted to protesting speed-ups among the hand folders and the dressers and to correcting the abuses of overtime employment at regular rates, with an agreement to pay time and a half for clearly defined cases of overtime. They also discussed with the mayor's committee the necessity of reducing the high cost of living in Manchester.

That the high cost of living had become a real problem by this time is indicated by a comparison of changes in the

⁵⁷Minutes of the Joint Convention of Employee Representatives, December 15, 1927.

⁵⁸Minutes of the Fourth Annual Convention, April 21, 1928.

⁵⁹Minutes of the Joint Convention of Employee Representatives, April 3, 1928.

⁶⁰Minutes of the Fourth Annual Convention, April 21, 1928.

cost-of-living index with changes in the index of actual annual earnings at Amoskeag. As in the previous period, the cost-of-living index for Boston is assumed to represent the relative changes in the cost of living in Manchester. The index of actual annual earnings is based on the median earnings of a 10-percent sample of Amoskeag workers who were employed in a minimum of 26 weeks in a calendar year; that is, the computation is based on those whose earnings very probably came only from employment at Amoskeag. The comparison is given in table C-2. From 1923 through 1928 there was virtually no change in the cost of living, but annual earnings of regular Amoskeag workers in 1928 were more than 8 percent below 1923.

**Table C-2.- INDEXES OF COST OF LIVING IN BOSTON
AND ANNUAL EARNINGS AT AMOSKEAG, 1923-34**

(1923=100)

Year	Cost of living in Boston ^a	Annual earnings at Amoskeag ^b
1923	100	100
1924	100	n.a.
1925	102	n.a.
1926	105	n.a.
1927	103	n.a.
1928	102	92
1929	101	n.a.
1930	100	84
1931	91	80
1932	83	60
1933	79	62
1934	82	71

^aComputed from *Handbook of Labor Statistics, 1936 Edition* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 616, 1936), p. 82. Figure for 1923 represents an unweighted average of figures for December 1922 and March, June, September, and December 1923; figure for 1924 represents a similar average for December 1923 and March, June, September, and December 1924; figures for 1925-34 represent averages of figures for December of the preceding year and June and December (November in the case of 1934) of the current year, the monthly figures being weighted 1, 2, and 1, respectively.

^bBased on median earnings from an NRP tabulation of a sample of company earnings records. For each year, data include only those workers who had some employment in each of at least 26 weeks. The number of individual earnings records upon which the index is based varies from 691 in 1932 to 1,212 in 1923. Median earnings in the base year were \$876.

n.a. Data not available.

In the calendar year of 1928 the cotton section lost \$407,000 before interest payments, and the worsted section earned \$140,000. After interest payments, the loss from both sections

was \$1,136,000. In the latter part of the year, however, there was evidence of increased activity. Moreover, the settlement of the New Bedford strike in October resulted in a 5-percent cut instead of the 10-percent reduction which had been instituted 25 weeks earlier. Upon this announcement the Fall River mills raised wages $5\frac{1}{2}$ percent in order to equalize wage rates with New Bedford.⁶¹ In view of these developments, the employee representatives in their regular convention on December 6 voted to petition the management for a $5\frac{1}{2}$ -percent increase in wages. The agent expressed himself as appreciative of

the feeling and request that had been made and would try to convince the delegates that their request was untimely. . . . "It is true that there is a healthy demand for our products, but the returns to the company are not so favorable. Business is taken today in small quantities for immediate delivery, and that is the kind of orders that are [sic] on our books today. The high cost of quick delivery demanded by the trade was eating into the profits. Short warps and the necessary mechanical changes which take more time to get the goods out, more looms had to be put in operation. Two thirds of the looms in operation today are running cloth for immediate delivery."⁶²

After admitting that the Fall River and New Bedford mills had no competitive advantage over Amoskeag, the agent went on to say that

"what New Bedford or Fall River does is only an indication of what we might do, but not an indication of what we should do. I don't know that the people of New Bedford or Fall River will be quite as well off in the next year."⁶³

The agent's remarks apparently carried conviction since the convention agreed that the wage question should be tabled indefinitely.

Evidence of the continued worsening of conditions was the resignation early in 1929 of W. P. Straw, the agent. This resulted from a disagreement over the continuation of the

⁶¹See "New Bedford's 25-Week Strike Comes to End With 5% Wage Cut Compromise," *Textile World*, Vol. LXXIV, No. 15 (Oct. 13, 1928), p. 47, and "Fall River Workers Get 5½% Wage Advance," *ibid.* See also *Boston News Bureau*, December 24, 1928, p. 1, which attributed Amoskeag's improved outlook to the facts that it operated at this time on a 54-hour schedule compared with 48 in Massachusetts and that its operatives received 5 percent less in wages than textile workers in Massachusetts.

⁶²Minutes of the Joint Convention of Employee Representatives, December 6, 1928.

⁶³*Ibid.*, December 7, 1928.

policy of drastic curtailment. For three generations a member of the Straw family had served as agent for Amoskeag. A mill career in textiles had become a tradition, and it was the violation of all that seemed sound in this tradition which led to the withdrawal of the family from the Amoskeag operations. The new agent was not a "textile" man.⁶⁴ His training had been that of an accountant.

After this occurred, more reliance was placed on individual wage adjustments than on a general wage reduction, which was not sought until September 1931. This was achieved by several expedients. The obvious method was the increase in the job assignment. Another method, already referred to, was compulsory overtime at straight-time pay. Nine months after an agreement had been entered into with the management to eliminate this practice, it was used again. The abrogation of this agreement stirred deep resentment among the operatives - to the point of their voting for a referendum on the discontinuance of the plan.⁶⁵ The convention rescinded this decision when the management again agreed to adhere to the arrangements previously in force.⁶⁶ Within 2 months (June 1929), however, "the Cloth Finishers reported a grievance in the South Division Bleach House which was termed 'compulsory overtime' at straight time pay among a certain few. It was moved and seconded that this convention go on record as being opposed to such procedure", but to no avail.⁶⁷ From this point on there was a continual whittling away of the agreement until it was openly repudiated at the depth of the depression.

Another device, which merits a fuller description, was the plan of reservation prices which the operatives had rejected in September 1926. By this arrangement those employed in producing a certain type of cloth would be paid at a reduced rate in order to compete effectively for a given order. The

⁶⁴Mr. Borre: Mr. Rauch was not a man versed in operating the mills, was he? I mean, he was a man who had been familiar with the books and then became secretary of the corporation, but, so far as being a textile man, would you say he actually knew the operation of mills, or the industrial part of mills?

*Mr. Dexter: I would say, before he was moved up to be agent here, he did not know." See U. S. Congress, House of Representatives, *Investigation of Real Estate Bondholders' Reorganizations*, Public Hearings Before a Subcommittee of the Select Committee (Hon. Adolph J. Sabath, Chmn.), 74th Cong., 2d sess., Sept. 30 and Oct. 1 and 2, 1936, Part 18, p. 67.

⁶⁵Minutes of the Joint Convention of Employee Representatives, April 3, 1929.

⁶⁶*Ibid.*, April 8, 1929.

⁶⁷Minutes of the cotton section, June 4, 1929.

first such agreement was made in August 1929. The nature of the arrangement is evident from this agreement, which provided:

Inasmuch as competition has forced the Company to reduce its selling price on ACA Ticking from $22\frac{1}{2}\phi$ per yard to approximately 19ϕ per yard, and the workers employed or to be employed on this work, have agreed to accept a reduction of 10% in rates, the Company agrees as follows:

"1 - To guarantee full time work to workers affected for a period of three months ending December 1, 1929, at which time renewal of the agreement will be considered.

"2 - During the life of this agreement to run all looms (528) in No. 3 Upper Weave Room on 32" ACA, basis of 38 looms to the weaver.

"3 - If, during the life of this agreement, market conditions change, and the manufacturing margin exclusive of cotton, returns to the basis existing prior to this price reduction, the Company agrees to restore the reduction in rates affected by this agreement."

A. O. Roberts, Supt.

H. E. Rauch⁶⁸

It was a policy of divide and rule. This arrangement was used with greater frequency with the deepening of the depression. In time there was even competitive wage cutting among the various mills at Amoskeag in order to induce the management to allocate an order to a given mill within the yard. Thus, in the minutes of the Joint Convention of Employee Representatives for July 23, 1930, it is recorded that there were

discussions regarding a cut in wages at No. 3 Central [Mill]. Representative reported that he was approached by Mr. Cram [overseer] regarding cut and, that after talking things over, Mr. Cram said that it was his own proposition; that he thought in doing so it would bring more work to No. 3.

The management's threat to close down a mill if the wage reduction was refused was not an empty gesture. The adjustment committee minutes in the following month (August 26, 1930) had the laconic entry: "Bag Mill - 10% reduction refused and mill is shut down." With the advantage of hindsight "No. 11 Drawing-in [department] - took [a] $12\frac{1}{2}\%$ reduction on [the] average."

⁶⁸From copy of letter from the superintendent and the agent to the chairman of the Joint Sectional Committee on Adjustment, Cotton Section, August 13, 1929.

A reduction that was to be in effect for only 3 months, or until a specified order had been completed, was often prolonged by the acceptance of repeat orders at the same reduced wage rate. The next step would be an agreement with a mill or a department to accept a reduced rate over a period of time without regard to a particular order. This step was taken early in 1931 when a meeting of the cotton section was informed that the "employees of the Bag Mill agree to work the whole year on [the] present wage schedule."⁶⁹

A refinement of this scheme of reservation rates was developed with special reference to the earlier stages of the manufacturing process. Since, for example, only a part of the output of a spinning room would be used in producing the "reserved" order, the wage-rate reduction would apply only to that part of the earnings obtained from the production entering into this order. Once the necessity of a wage cut was established, this appeared as an equitable method, provided the management could be trusted to make an honest allocation between the reserved order and all other orders. According to the remarks of several operatives prominent in the company union, a number of overseers were flagrantly dishonest in this respect.

Presumably it was the realization that the system of reservation prices meant the virtual abandonment of the plan as a collective-bargaining agency that led to the adoption of the following resolution in March 1931:

Whereas it has been the method in the past to put in reduction of wages by a majority vote of each department;

Be it resolved that in the future all wage reductions will be by a two-thirds vote of all the workers involved, and all ballots taken under this resolution will be secret.⁷⁰

This resulted in an immediate stiffening in the operatives' attitude as indicated by an incident recorded in the minutes of the Joint Sectional Committee on Adjustment, March 20, 1931:

. . . . [The agent] called the Worsted Adjustment Committee and inform[ed] them he has taken an order for 700,000 yards of fancy worsteds on a great

⁶⁹Minutes of the Joint Sectional Committee on Adjustment, Cotton Section, January 6, 1931.

⁷⁰Minutes of the Joint Convention of Employee Representatives, March 16, 1931.

gamble. . . . The order is to run until September 15, 1931. Asks workers in Worsted Division to accept a 10% reduction in wages to be applied any way workers will choose amongst themselves, saying he took order at a loss to maintain production in worsted market.

Committee called representatives from all departments involved and presented this to them. A vote was taken and it was decided to approach workers and ask their sentiment. A secret ballot was taken among the help which decided 1653 against, 241 for.

The vote put a stop to wage cutting by this method for some months.

Despite the extensive application of these wage reductions, the onset of the great depression greatly accentuated Amoskeag's decline. The largest loss of the depression was sustained in the very first year, 1930. After payment of bond interest of \$790,000, the aggregate loss from both sections was \$2,585,000. Employment declined some 28 percent between 1929 and 1930, from 21.3 to 15.4 million man-hours. In terms of average weekly number employed the shrinkage was only slightly less. There was a minor improvement in 1932.

A curtailment of this magnitude obviously created a relief problem. As in many other localities, the municipality was not in a position to cope with the situation, and the burden had to be assumed by those workers who still had employment. As early as November 1930 it was necessary to form the Amoskeag Employees' Relief Committee, composed of three workers, the paymaster, and the employment manager. The company agreed to match every dollar collected from the workers. It underestimated the generosity of the workers, however, and failed to match more than the first \$1,800. Contributions were solicited from the first week in December 1930 to April 11, 1931, during which time more than \$7,800, including the company's contribution, were received and expended.

The plan adopted by . . . [the] committee in extending aid to the unemployed was to issue orders to tradesmen, in all cases where possible favoring the particular person or store where the recipient was accustomed to trade. In no case was actual gifts of money made. All business was done through orders for groceries, fuel, and other necessary supplies, the amounts ranging from 3 to 5 dollars at one time.⁷¹

⁷¹Minutes of the Seventh Annual Convention, April 18, 1931.

Aside from the collection of money, the workers insisted on relief in the form of sharing the work, or "alternating" according to local usage. Thus the weave rooms in two different mills complained in November 1931 that the overseers were not alternating on the work. The overseers defended themselves by saying that "if they alternated on weavers and fixers they would have a lot of seconds which they could not check up on [since] one would be blaming the other. They had tried this and percentage of seconds [had] increased."⁷² Nonetheless the operatives persisted, and at the meeting of the cotton section the following month, in addition to "much discussion and debate in regards to unrest among employees in the yard", there was also much discussion on "the question of alternating in the mills. Representatives thought the alternating system was correct."⁷³

Estopped from making specific wage cuts, the management sought a general wage reduction of 10 percent in the fall of 1931. The campaign was started by inviting the Employees' Council, the executive committee of the convention, to luncheon with the Amoskeag officials, including the treasurer, Mr. Dumaine. The latter "explained that losses of [the] Company and competition force[d] him to ask the employees to accept a 10% reduction all through the plant for a period of six months. At the end of that time business then would be discussed. . . . He would reduce rents in the Amoskeag tenements the same percentage."⁷⁴

Although the discrepancy between the indexes of cost of living and annual earnings (table C-2) was less in 1931 than in 1930 because of the much larger decline in the cost of living, nevertheless the difference indicated a reduction in real wages of more than 10 percent from 1923. The reduction in rental of Amoskeag tenements, however, could do little to alleviate this condition since the tenements housed only 900 of the Amoskeag workers. It would mean also in the case of the boarding houses a continued squeezing of the proprietors despite the fact that the rental reduction would be passed on to them as well. This appeared to be the situation according

⁷²Minutes of the Joint Sectional Committee for the Cotton Section, November 4, 1931.

⁷³*Ibid.*, December 7, 1931.

⁷⁴Minutes of the Employees' Council, September 12, 1931.

to the findings of a joint committee organized to investigate the boarding houses in September 1931. The committee reported:

. . . . no unfair charges are being made for board or rooms at the corporation houses. The board price is now \$5.00 per week and at some houses the price for women is 50¢ less. The price was formerly \$5.50 and those houses which did not reduce the price at the first 10% reduction in wages are making a similar reduction now. The prices of furnished rooms range from \$1.25 per week to \$3.50 depending on size, location, furnishings and conveniences. In view of the expense of heat, light, general care and overhead these prices, the committee feel, are reasonable.⁷⁵

Among the pertinent facts brought out at the hearing were the following: The higher-priced rooms were always full, and the cheaper rooms were the ones vacant; a loss of about 20 percent was sustained owing to rooms being vacant; further losses were sustained by persons leaving the city without paying for board and room rent; and "many individuals [were] carried over long periods of unemployment by the boarding houses." Finally, it was brought out, and it was here that the squeezing occurred, that the

keepers of the boarding houses [were] expending in many instances from \$100 to \$300 on interior repairs in order that their houses [might] be in shape to attract and hold patronage; and the occupants of these houses freely expressed their views that they were more interested in the question of reasonable repairs than in any reduction in the rental price.⁷⁶

Be this as it may, in presenting the wage reduction to the convention the agent made the further stipulation that

"if during any year while such wage adjustments are operative, the company shows a net profit, one-third of such profit will be divided among the employees in direct proportion to their earnings for that year. It is understood that such distribution will be impossible this year because of the losses sustained in the eight months that have already passed."⁷⁷

It was also indicated that this was an offer and not an ultimatum, but subsequent actions belied this characterization.

⁷⁵From a special report on prices for room and board in corporation boarding houses, by a subcommittee of the Joint Convention of Employee Representatives, September 24, 1931.

⁷⁶*Ibid.*

⁷⁷Minutes of the Joint Convention of Employee Representatives, September 14, 1931.

The convention voted to inform the operatives of the agent's statement and to hold a referendum. The balloting was nearly 2 to 1 in favor of refusing the reduction: 1,708 voted "Yes" and 3,127 voted "No." Notified of this result, the agent addressed the convention as follows:

. . . . he told them that he was impressed with the "yes" vote but did not think the "no" vote was the true sentiment of the people. He did not believe that the 8,000 workers in the Amoskeag would want to see this concern go out of business, but if that is the sentiment of the workers he is absolutely helpless and there is nothing he can do but order the running out of work.⁷⁸

It was this statement that transformed the offer into an ultimatum.

The convention then proceeded to ballot "on whether we will go back to the worker for a reconsideration of the vote." This motion was lost by a margin of two. The agent was "totally surprised" and asserted "that there was nothing further to be said"; nor would he compromise on the amount of the reduction.

On the following day the convention received petitions from the operatives asking for a reconsideration of the previous vote. The origin of the petitions was under suspicion.

Reports came to Council that some officials started these petitions in their departments and that some overseers were approaching their help and asking them to reconsider their vote. A committee was appointed to see Mr. Rauch [the agent] to have this stopped if it is true. He answered that he would give orders to stop it if anything like this is going on but stated that overseers have the right to talk to help that were being sent out as their work was finished to tell them why and to answer questions which their help might ask them.⁷⁹

Regardless of their source, the petitions had the desired effect not only of forcing the convention to authorize another referendum of the workers but also to waive the requirement that the reduction had to be accepted by a two-thirds majority in order to take effect. This turned out to be a necessary precaution since the vote was slightly less than a two-thirds majority in favor of accepting the reduction.

⁷⁸*Ibid.*, September 15, 1931.

⁷⁹Minutes of the Employees' Council, September 18, 1931.

The agent, informed of this result,

was very [much] pleased and expressed his thanks to everyone and gave his word that he would do all he could in return. On the strength of this co-operation he would make repairs in various departments which would better conditions. He will have new clothing put on cards and Morell Rolls in worsted department and will buy new C & K looms at a cost of \$30,000, a new humidifying system and new rails in rayon department. This will be classed as new work and will give mechanical department benefit of more employment.⁸⁰

These remarks by implication also serve to indicate a policy of plant deterioration.

The workers were helpless in the face of a real threat of a shut-down, particularly at a time of a general depression. The most that they could suggest was to "call to the attention of the management the employing of out-of-town help in preference to local help, and that out-of-town help that are now employed be discharged."⁸¹ There was considerable justice in this complaint in view of the fact that the Amoskeag workers had been paying for the relief of their unemployed fellow workers.

This agreement, however, served in the main to generalize a level of wages that had come into existence through a series of individual agreements. The company wanted a still lower rate and immediately prevailed upon those working on a print-cloth order to accept an additional 10-percent reduction. Continued curtailment during the last 3 months of the year, particularly in the cotton section,⁸² obliged the agent to press for an extension of the additional reduction to the entire cotton section. According to the agent:

All through the country large readjustments are being made in wages, particularly in the South where most competition is from. Everything is being done by the management to reduce cost and can see nothing further which would help conditions and suggests that labor on these materials be brought to a print cloth basis of 10 and 10%.

According to agreement with employees, business would be discussed about a month before the end of agreement on April 1st, but stated there was no

⁸⁰*Ibid.*, September 17, 1931.

⁸¹Minutes of the Joint Convention of Employee Representatives, September 18, 1931.

⁸²The average weekly man-hours in these 3 months in the cotton section was 158,000 compared with the annual weekly average in 1931 of 192,000.

need to wait until then as they knew already the conditions they were faced with. If it was going to be necessary to liquidate, he did not care to contract business which would take several months to fill.⁸³

The Employees' Council nevertheless insisted on the maintenance of its agreement which was not to expire until April 1, 1932. To safeguard against a recurrence of individual agreements with specific departments, they decided

that if any difference arises where additional work or any cut in wages to a group of workers in any department is proposed, the whole cotton convention be called in. In discussion it was explained that this may eliminate any case where work would be offered to any department on conditions that had been refused by some other group in another mill.⁸⁴

This procedure was later invalidated on the ground that it violated the constitution of the plan.

Throughout all these months the speed-up had continued to be a major complaint. It had reached its highest development when the weavers in a certain weave room were ordered to leave their looms running during the noon hour. The management justified this order on the ground that "it . . . [was] the method of production in many other plants, especially through the South"⁸⁵ This practice was eliminated, however, as a result of the sustained protest of the weavers.

A month before the expiration of the wage agreement the cotton section attempted to improve its bargaining position by going on record for the restoration of the wage rate which had existed prior to the last reduction on October 3, 1931. This carried no weight with the management, for toward the end of the month the agent proposed a complete readjustment "to bring about a more equalized basis of wages."⁸⁶ Since the readjustments involved reductions varying from 10 to 25 percent, this was equalization but at a lower level.

The agent outlined three possible courses for the operatives:

1. Keep the new rate of wages.
2. Keep the present rate of wages and not take orders, running out present orders.

⁸³Minutes of the Employees' Council, January 18, 1932.

⁸⁴*Ibid.*, January 20, 1932.

⁸⁵*Ibid.*, September 26, 1931.

⁸⁶*Ibid.*, March 25, 1932.

3. Post notices to the effect that those who wanted to work could do so at the new wage rate, but that the management did not want any trouble with the workers.⁸⁷

The convention called for a referendum on the new wage scale, which was rejected by a 10 to 1 vote. Since the agent ordered that "'you will go back to work at the rates you are now on'",⁸⁸ the second course was being pursued. Accordingly, within a week curtailment was announced. In the week ending April 8, the number employed in the cotton section was 3,674 compared with 4,081 in the preceding week and 3,088 in the following week. Between April 1 and 15, employment was reduced by 200 persons in both the worsted and mechanical sections. Seniority was not to be observed not only because Amoskeag never had had a seniority plan but also because "the help retained would be governed by their efficiency in order to be the most economical to the Company." To give the appearance of finality, the operatives were not laid off, which was the usual procedure in such circumstances, but were discharged. As far as the agent "knew they were done permanently."⁸⁹

In view of this genuine threat of a shut-down the council asked for an appointment with Mr. Dumaine. The latter was not particularly informative since he too "was working under orders" but that

personally he thought that if this plant ever closed completely, he doubted if it would be opened again. If the losses of the Company could be reduced they would be able to run a number of years at a small loss. Our taxes and bond interest are the biggest factors in our losses. If the market prices had remained as last season, it would not have been necessary to ask for this adjustment. The proposed scale of wages were [sic] drawn up as the only rates under which the Company could continue to operate under present conditions.⁹⁰

Both the workers and the treasurer met with the committee of the chamber of commerce in order to have the cost of living reduced and to have pressure exerted on the municipal government to reduce taxes. It was soon apparent that this too was a futile procedure. In the meantime "a petition was

⁸⁷Minutes of the Joint Convention of Employee Representatives, March 29, 1932.

⁸⁸*Ibid.*, March 31, 1932.

⁸⁹Minutes of the Employees' Council, April 4, 1932.

⁹⁰*Ibid.*

being circulated and pressure brought on employees to sign it [This] was taken up with the management [which] agreed to warn overseers and second-hands against this practice."⁹¹

The management refused to compromise on the extent of the readjustment and insisted that the operatives "take a stand one way or another whether we desired the mills to run or close down"⁹² According to the agent:

"Our assets are gone The new scale of wages is the best arrangement during the balance of the year. Our losses have been large and we cannot afford to lose any more money.

"You can continue to work for the wages that we can pay. If this plant closes down, I don't know where there is work to be had and there is no possibility of getting new industry into the city. It is not a question of bull-dozing you into taking the reduction."⁹³

Given the past actions of the trustees, it must be admitted, all followed with relentless inevitability.

It thus remained for the convention to surrender once more by ordering another referendum. This resulted in a majority in favor of accepting the reduction, but the vote was still some 500 short of a two-thirds majority. After much debate this requirement was again waived, and the readjustment, involving a reduction of from 10 to 25 percent, went into effect on April 30 and was to remain in force for the remainder of the year.

For the plan, however, it was the beginning of the end, and very likely it would have been the end of Amoskeag as well if it had not been temporarily rescued by the pre-NRA boom in textiles. A scheme of readjustment in contrast to a flat reduction entails extensive reclassification of jobs and rates. In a plant as large as Amoskeag this was bound to create dissatisfaction, particularly when the reclassifications were downward and there was no adequate procedure for handling grievances. This situation was aggravated by an improvement in business conditions at a time when these grievances were acute, which tended to make all the readjustments appear unnecessary.

⁹¹Minutes of the Joint Convention of Employee Representatives, April 21, 1932.

⁹²*Ibid.*

⁹³*Ibid.*, April 22, 1932.

It served also to give rise to charges of discrimination over the rehiring of those employees previously discharged. In the last week in June 1932, less than 4,200 workers were employed in all of Amoskeag. By the middle of August there were 5,500 at work and at the end of September 6,000, with a more gradual increase from then on to the end of the year when 6,800 were employed.

At the end of August it was reported to the Employees' Council that the "help in the No. 11 Mill are dissatisfied and awaiting action on rates which they have filed their objections to. Worst of help are also awaiting action on their rates."⁹⁴ The delays, moreover, were scarcely calculated to promote harmonious relationships. That the opposite prevailed is evident from the agent's remarks to the chairman of the council:

[The agent] told him [the chairman] that he wished to create a better feeling between the workers and the management. He objects to harsh words and manners at committee meetings.

[The chairman's] answer was that he felt that it was up to Mr. Rauch's subordinates to help create a better feeling and that there is much dissatisfaction throughout the plant because of the drastic reduction and unfairness of classification which affects the wages since this reduction There are many cases where adjustments should have been made so the help could make what they were supposed to make but they [the adjustments] have not been made.⁹⁵

It was also reported at this meeting (September 8)

that there are cases where help has been brought into departments while help that belong there are still out of work [although] at the time of the reduction all departments were expected to close and [the agent] agreed that all help would be hired back as soon as there was work for them.

To aggravate the situation, the management ruled that "if a person had been laid off he severed connection with the Company and had no right to appeal to the [adjustment] committee."⁹⁶ Thus the stage was prepared for a blacklist which was soon to make its appearance.

⁹⁴Minutes of the Employees' Council, August 30, 1932.

⁹⁵*Ibid.*, September 8, 1932.

⁹⁶*Ibid.*

With the very perceptible improvement in business prospects, "petitions have been received by the cotton committee from several departments asking for the restoration of wages in effect prior to the readjustment."⁹⁷ The agent inferred from these petitions that

the employees are not willing to co-operate with the management any longer. . . . He stated that our agreement was to the end of the year, and orders had been taken on the expectancy that these rates would continue to the end of the year. . . .

From all business indications he would not be able to accept business if he felt that employees were going to insist on the return to their former schedule of wages. He has been wondering if these petitions are any indication that this is the sentiment of most of the yard.⁹⁸

Apparently this was not the prevailing opinion since the combined convention voted to stand by the agreement with the management.⁹⁹

The grievances resulting from discriminations in reclassification and rehiring, however, remained outstanding even in the final month of the agreement. Thus when the council questioned the agent on

a blacklist which is said to exist, he stated that in every place of employment there are certain people who are undesirable and when they are discharged they will not be rehired. The reason for them not being rehired has nothing to do with the readjustment, but refused to give any information as to who they might be or reasons for being blacklisted. The opinion of the Council is that such a person should be told why they will not be rehired and be given a chance to defend themselves¹⁰⁰

The treasurer upheld the position of the agent with the statement that "two things entered into each case. Efficiency came first, and [that] some were undesirable and not wanted."¹⁰¹

It was clear that with the approach of negotiations over a new wage agreement the plan would again be put to a crucial test. This was anticipated by the treasurer himself when he called the council's attention to the fact "that the Plan of Employee Representation had cost the management \$18,000.00

⁹⁷*Ibid.*, September 26, 1932.

⁹⁸*Ibid.*, September 28, 1932.

⁹⁹Minutes of the Joint Convention of Employee Representatives, October 5, 1932.

¹⁰⁰Minutes of the Employees' Council, December 6, 1932.

¹⁰¹Minutes of the Joint Convention of Employee Representatives, December 20, 1932.

in the last year", leaving the inference that it was not worth it in view of the widespread hostility among the operatives toward the management. However, in response to a question from the council, the treasurer "stated he did not desire to abolish or suspend the Plan of Representation."¹⁰²

In this tense atmosphere the combined convention was informed by the treasurer that

he was not here to request a reduction in wages, but felt he could not keep going to the owners of the mills with a request to keep the mills in operation with an annual loss of a million dollars. [He] stated that it would take a reduction in wages throughout the plant of 25% to allow the management to break even, but that that was up to the workers themselves, the management having no proposition to offer.¹⁰³

The employees responded unanimously by voting to "request the management to restore the wage scale in effect prior to October 3, 1931." No immediate answer was forthcoming owing to the illness of the agent. However, on December 30 the following communication was received from the management:

"We will be unable to answer the Convention's resolution of December 20th or present a definite wage plan for 1933 until about January 15th.

"Until further notice the present wage scale will be maintained."¹⁰⁴

The wage plan was presented to the combined convention on January 16 in a letter written by the agent. It is quoted in full:

To the Combined Convention:
Plan of Representation:

On Saturday, December 17th a conference with your Council was held as called for in the agreement of last April; the management attended and laid before the members an exact picture of the existing situation.

At the Convention's meeting December 20th the Council transmitted a report of the meeting.

The Convention's unanimous resolution evidences utter disregard for a situation commonly conceded to be the most serious ever known.

Having in mind every possible consequence, the request is refused.

¹⁰²*Ibid.*

¹⁰³*Ibid.*

¹⁰⁴*Ibid.*, December 30, 1932.

Unfilled orders now on the books are priced on a basis well below cost; new business offering is priced on an even lower basis. Under these circumstances it will be impossible to accept new business, other than sufficient to run out unsold stock on hand, until costs and market prices are equalized assuring a new dollar for an old.

Prevailing wages will continue until current orders are completed.

Opportunity will be given unemployed workers to start idle machinery at rates justified by market prices.

Effective Saturday, January 21st, the present Overtime and Hours of Labor agreements will be cancelled. Thereafter all overtime will be paid at straight rates, except for necessary emergency repairs when required to be performed upon Sundays or Holidays. All overtime and Holiday work will be voluntary.

Amoskeag Manufacturing Co.

H. E. Rauch¹⁰⁵

The management's position was further elaborated by the agent in reply to questions asked by a negotiating committee of the convention:

He would not continue present wage scale until April 30, 1933.

It was his privilege to start idle machinery at lower wage scales.

The Council, having [had] conditions explained to them by Mr. Dumaine, should have prevented the convention from adopting [the] wage resolution.

He would not discard the Plan of Representation, and as to procedure, all committees had ripped procedure to pieces.

He had the right to break agreements if he saw fit without consulting anyone.¹⁰⁶

In reply to this, the committee reminded the agent "of his former statement of not wanting trouble and disturbances in the mills but that he was now flirting with trouble."¹⁰⁷

The seriousness with which the management regarded the situation is indicated by its successful attempt to exercise control over newspaper publicity. Because of this, as well as because of "several complaints registered by the delegates on the misleading and wrong accounts given on the radio . . . of actions taken by the Convention, . . . the delegates

¹⁰⁵*Ibid.*, January 16, 1933.

¹⁰⁶*Ibid.*, January 17, 1933.

¹⁰⁷*Ibid.*

felt a publicity committee should be appointed." But the appointment of a committee was not the sole prerequisite to securing full publicity. The committee soon learned

that the Union and Leader [the two daily English-language newspapers in Manchester], could not print the whole of the wage resolution answer due to the fact that a promise had been given [to the agent] not to publish certain parts at his request the previous night.¹⁰⁸

The French-language newspaper, *L'Avenir national*, however, agreed to print the whole statement.

The delegates again realized that the plan was unable to serve their interests and voted that unless the agent "sees fit to change the ultimatum issued to us we [should] end all negotiations with him, and serve ninety-days notice for the dissolution of the Plan of Representation."¹⁰⁹

On the following day (January 18) there was a final desperate effort to compromise by "offering the management to go back to [the] wage scale in effect prior to April 1932." This was flatly refused by the management, and there remained only to instruct "the employee members of the Committee on Routine, Procedure, and Elections to take immediate steps to arrange for a vote regarding discontinuing of Plan of Representation"¹¹⁰ and to accept another cut in wage rate.

The vote was 5 to 1 in favor of discontinuing the plan, and little wonder when earnings had been reduced by 40 percent from 1923 and the cost of living by less than 20 percent (table C-2). The onus would naturally be placed on the mechanism for accomplishing this loss in real income and not on the underlying causes.¹¹¹

¹⁰⁸*Ibid.*

¹⁰⁹*Ibid.*

¹¹⁰*Ibid.*, January 18, 1933.

¹¹¹Minutes of the Committee on Routine, Procedure, and Elections, April 20, 1933.

APPENDIX D

EMPLOYMENT CONDITIONS, 1933-35

The final phase of Amoskeag's decline was disguised as a boom. It coincided with the pre-NRA upswing in textiles that was sustained throughout much of the life of the National Industrial Recovery Act. Why this should have resulted in the shut-down has been explained in chapter III. Here it is proposed only to show how the change in circumstances affected employment conditions.

BEFORE THE NRA

Just at the time of the formal abrogation of the Plan of Representation, the pre-NRA boom was gaining momentum. The average weekly number on the pay roll in January 1933 was 6,988, and with a gradual expansion, the weekly average reached 8,259 in June of the same year, an increase of 18 percent. This increase occurred chiefly in the cotton section. Even this understates the extent of the upturn, for the percentage increase in the weekly average of man-hours over the same period was 28. The return of more prosperous conditions doubtlessly favored the organizing activities among Amoskeag workers by the representatives of the United Textile Workers of America.

Trend Toward Union Organisation

As a result of the abandonment of the Plan of Representation there was no medium for the airing of grievances at a time when grievances were many. The new wage cut created additional dissatisfactions on top of those that had never been satisfied from the previous wage reduction. Blacklisting continued. For example, the chairman of the combined convention for several years preceding the termination of the plan, a man most forthright in expressing his views, was laid off when the plan was discontinued. Despite the rehiring of upwards of 1,000 persons, he was unable to secure employment for about 6 months, and then it was in the cotton section rather than in the worsted section where he had been previously employed. Workers were imported from outside of Manchester when Manchester residents were

refused employment. As a general source of discontent there existed a condition of low wages and part-time employment described in appendix E.

There was still another consideration that facilitated organization. Prior to the strike of 1922 each of the 10 crafts had had its own organization with its own meeting place, and coordination had been sought by a council. Under the plan the operatives learned that most problems affected all the workers in the mill yard regardless of craft and could be discussed most effectively in a combined convention. Accordingly, the operatives were receptive to the idea of forming a similar organization under the direction of a group independent of the management. Moreover, those who had been active in the union prior to the strike of 1922 had maintained a close contact with a large number of the operatives by becoming active in the company union. Thus the chairman of the combined convention and the chairman of the Employees' Council were active union people and had entered into the plan with the idea of getting control and disclosing its shortcomings.

After several months of organizing, the union decided to test its strength in the latter part of May 1933. The immediate occasion was a dispute over wages. A notice had been posted that the mills would close from May 26 to July 31 to all employees who did not wish to continue on the existing wage scale. At the same time there was an announcement of a 15-percent increase in wages to become effective on July 29, but the operatives wanted the raise to be retroactive to February when a cut had been taken. The company argued that the orders then being turned out under the prevailing wage rate would not be finished until July 29 and that it was impossible to give the raise sooner if it was to fulfill its contracts. This was not acceptable to the union, and after several departments had walked out, the Amoskeag closed down on May 19. The textile operatives were doubtless encouraged in this step by the 3,000 shoe workers in Manchester who had been out on strike for almost 2 months seeking wage adjustments.

The Amoskeag treasurer placed much of the blame on the city government which had asked Amoskeag to add to its pay rolls in order to reduce relief costs. It was claimed that for this reason the Amoskeag pay roll had been increased by 6,500 during

the winter and that to give raises would necessitate laying off many of the operatives.¹ This, however, is flatly contradicted by the company's own pay-roll records. These show that early in November 1932 the number employed was 6,068. Small weekly additions to the pay roll brought the number to 7,075, an increase of 1,000, by January 20, 1933. From this point there was a gradual decline in the number employed, reaching the low point of 5,723 on March 3. A subsequent rise brought the number to 7,728 on May 19, the date of the strike. Thus from the March low there had been an addition of only 2,000 compared with the alleged 6,500.

By May 23 there were serious disorders. The militia was called out - a precaution that had not been necessary in the prolonged strike of 1922. On the following day 50 arrests were made. Twoscore were reported hurt by mob violence, and much damage was done to property. The disturbances were short-lived as a result of a successful conference on May 25 of mill officials, the mayor, the Governor, a union organizer, and the Catholic Bishop of Manchester. By the terms agreed upon at this conference Amoskeag was to grant the 15-percent increase in wage rate at once and to reopen the mills on May 31. The strikers voted 3 to 1 to accept the offer, and the militia was withdrawn.

The union won more than an advancement of the effective date of the wage-rate increase; it also won recognition from the management, the right to be represented by a business agent, and the establishment of shop committees to handle grievances. The check-off of dues and a closed shop, however, were not obtained, but a qualified form of seniority in lay-offs was accepted by the company. Six weeks later, with the promulgation of the textile codes under the National Industrial Recovery Act, which guaranteed the rights of collective bargaining, the union was well entrenched but unfortunately not in a position fully to control its membership.

THE NRA AT AMOSKEAG

The company anticipated some of the provisions of the textile codes by announcing on June 23 a new policy of two 8-hour shifts with an \$11.00 minimum wage. On July 17 the provisions

¹*Manchester Leader*, May 20, 1933.

of the Cotton Textile Code became operative, establishing a 40-hour week with wages to equal the amount earned in the 54-hour week. Another provision was a minimum wage of \$13.00, with exemptions for cleaners, sweepers, and learners. In the following week the Worsted Code was also in force with similar provisions and a \$14.00 minimum.

Whether it was in spite of or because of the codes, the volume of production at Amoskeag continued to rise in both the cotton and worsted sections through the second half of 1933. The volume of production in the worsted section, however, declined through most of 1934. Production in the cotton section, despite the national textile strike in September, slightly exceeded the poundage manufactured in the previous year.

Because of the shortening of the workweek the number employed increased at a greater rate. Thus the average weekly number employed in the cotton section in 1933 was 38 percent larger than the average in 1932, and in 1934 the average exceeded the 1933 average by 33.5 percent. In the worsted section the 1933 average was some 33 percent larger than the average of the preceding year, but in 1934 there was a decline of 14.2 percent from the 1933 average. Those employed at maintenance work, machinery repairing, and clerical tasks (comprising the general section) also gradually expanded in number from 540 in July 1933 to a high point of slightly over 800 in November 1934.

Chapter III showed that the financial record, for the most part, was not in keeping with the upturn registered by the production and employment figures. The cotton section, for example, showed an operating profit of only about \$60,000 before its share of the interest payments in 1933. The worsted section, on the other hand, had an operating profit of more than \$400,000 after the payment of some \$233,000 in bond interest. In 1934 this gave way to an operating loss of about \$70,000 before interest payments because of the decline in production, while in the cotton section the loss before interest payments was upwards of three-quarters of a million dollars despite the fact that the 1933 level of production had been sustained.

It has been explained also that this result was counter to expectations since the general effect of the Cotton Textile Code was to narrow the wage differential between the southern

and New England mills, much to the competitive advantage of the latter. Under such circumstances a rising volume of business would be expected to yield some profits, as was the case in the worsted section in 1933 before the decline in volume of business in 1934. The effect of the code wage rates at Amoskeag, however, was quite the contrary. This can

Table D-1.- COMPARISON OF AVERAGE HOURLY WAGE RATES
FOR SPECIFIED OCCUPATIONS IN COTTON-TEXTILE
MANUFACTURING IN AMOSKEAG, NEW ENGLAND,
AND SOUTHERN MILLS, 1924-33^a

Occupation and mill	Average hourly wage rate (dollars)							Percentage increase, July 1933- August 1933
	1924	1926	1928	1930 ^b	1932	July 1933	August 1933	
Weavers ^c								
Amoskeag	0.464	0.423	0.374	0.351	0.318	0.277	0.478	72.6
New England	.512	.447	.432	.444	.342	.289	.432	49.5
South	.336	.315	.324	.334	.281	.226	.391	73.0
Spinners								
Amoskeag	.369	.350	.330	.331	n.a.	.192	.362	88.5
New England	.425	.370	.359	.349	.277	.236	.373	58.1
South	.234	.222	.228	.225	.185	.162	.322	98.8
Doffers								
Amoskeag	.414	.379	.361	.351	n.a.	.234	.420	79.5
New England	.453	.399	.393	.386	.318	.270	.417	54.4
South	.284	.274	.280	.287	.235	.196	.345	76.0
Spooler tenders								
Amoskeag	.400	.369	.310	.315	n.a.	.160	.350	118.8
New England	.390	.318	.307	.292	.252	.223	.364	63.2
South	.221	.206	.209	.227	.188	.161	.327	103.1
Warpers								
Amoskeag	.442	.417	.382	.374	n.a.	.203	.377	85.7
New England	.443	.404	.377	.360	.298	.284	.392	38.0
South	.298	.273	.271	.286	.229	.194	.290	49.5
Slasher tenders								
Amoskeag	.634	.538	.501	.522	n.a.	(c)	(c)	-
New England	.647	.539	.512	.497	.431	(c)	(c)	-
South	.334	.317	.323	.324	.279	(c)	(c)	-
Drawers-in								
Amoskeag	.394	.332	.307	.282	n.a.	.192	.362	88.5
New England	.445	.423	.403	.406	.320	.336	.436	29.8
South	.281	.277	.297	.298	.240	.230	.383	66.5

^aFigures for New England and the South were adapted from A. F. Hinrichs, "Historical Review of Wage Rates and Wage Differentials in the Cotton-Textile Industry," *Monthly Labor Review*, Vol. 40, No. 6 (May 1935), p. 1171. Amoskeag wage rates for the specified occupations were adapted from a company record compiled weekly of the hourly wage rates earned by each occupation in each mill for the given week. The computed figure for an occupation is an average of these weekly entries in all mills without the application of any weights, since the number employed at a given occupation in a specified mill on a certain date is not known.

^bIn this year the Amoskeag rate is the average computed from entries for January through April.

^cSlasher tenders included under "Weavers" in 1933.

n.a. Data not available.

be shown by a comparison of average hourly wage rates for important specified occupations in cotton-textile manufacturing at Amoskeag, New England, and southern mills for the period 1924-33. This comparison is set forth in table D-1.

The limitations of any such comparison (see table D-1, footnote a) should be apparent. It is improbable that occupations called by the same name in different regions refer to exactly the same tasks, and it is the task that largely conditions the rate. For broad comparisons, however, the data seem serviceable.

One such comparison discloses that from 1924 to the great depression the average hourly wage rates received by weavers, spinners, doffers, slasher tenders (dresser tenders), and drawers-in at Amoskeag were considerably below the average rates paid in these occupations throughout New England but considerably above the comparable rates in the South. With respect to the two remaining important occupations, spooler tenders and warpers, the respective average Amoskeag rates were as high as or higher than the prevailing averages in New England and, of course, much higher than those in the South. Doubtless the wage differential between Amoskeag and the rest of New England, in favor of the former, accounted for the fact that Amoskeag's decline in this period was less rapid than the decline of textiles in the New England region generally.

It is equally clear that the downward pressure on hourly wage rates during the depression years was more severe at Amoskeag than was generally the case in the industry, either in the North or the South (table D-2). Whereas in 1924 the wage rates in the South for each of the seven occupations were lower than the respective Amoskeag rates by percentages that varied from 28 to 47, by July 1933, immediately preceding the NRA code, the rates for spooler tenders were equal, the drawers-in received 20 percent more in the South than at Amoskeag, and in the four other occupations the southern rates were only from 4 to 18 percent less than the comparable Amoskeag rates. On the other hand, the differentials between Amoskeag and other New England mills were widened in each occupation with the exception of the weavers, a department that accounts for about half the total direct labor that enters into the manufacture of cloth.

**Table D-2.- RELATIVE AVERAGE HOURLY WAGE RATES FOR SPECIFIED
OCCUPATIONS IN COTTON-TEXTILE MANUFACTURING IN
AMOSKEAG, NEW ENGLAND, AND SOUTHERN MILLS,
1924, JULY 1933, AND AUGUST 1933^a**

(Amoskeag rates=100)

Occupation and mill	1924	July 1933	August 1933
Weavers ^b			
Amoskeag	100.0	100.0	100.0
New England	110.3	104.3	90.5
South	72.4	81.6	81.8
Spinners			
Amoskeag	100.0	100.0	100.0
New England	115.2	122.9	103.0
South	63.4	84.4	88.9
Doffers			
Amoskeag	100.0	100.0	100.0
New England	109.4	115.4	99.3
South	68.6	83.8	82.1
Spooler tenders			
Amoskeag	100.0	100.0	100.0
New England	97.5	139.4	104.0
South	55.3	100.0	93.4
Warpers			
Amoskeag	100.0	100.0	100.0
New England	100.0	139.9	104.0
South	67.4	95.6	76.9
Slasher tenders			
Amoskeag	100.0	(b)	(b)
New England	102.1	(b)	(b)
South	52.7	(b)	(b)
Drawers-in			
Amoskeag	100.0	100.0	100.0
New England	112.9	175.0	120.4
South	71.3	119.8	105.8

^aBased on table D-1.

^bSlasher tenders included under "Weavers" in 1933.

It follows from this that the hourly rates under the code had the effect not only of greatly narrowing the differentials between Amoskeag and other New England mills - perhaps even beyond those which existed in 1924 - but also of widening

somewhat the differentials between Amoskeag and the southern mills, to the competitive disadvantage of the former. This may be seen from tables D-1 and D-2, where the NRA differentials for weavers and doffers were recorded as the same as the pre-NRA differentials, but those for spooler tenders, warpers, and drawers-in were widened and the differential for spinners was somewhat diminished. This goes far to explain why despite the decided increase in the volume of production in Amoskeag's cotton section it was unable to show an operating profit while under the NRA code.

The differentials serve also to explain in part the source of the labor difficulties during this period. The speed-up reappeared as a major grievance since the payment of wage rates that had been increased on the average (unweighted) by 87 percent made a reduction in per-unit costs imperative, and the only feasible method was to increase the work load, particularly since the installation of new machinery, except for replacement purposes, was precluded by a code provision. Another complaint was the wage-rate increase itself. As sizable as the wage-rate increases were, nevertheless many of the operatives claimed that other New England mills were paying higher rates - a comparison made possible by affiliation with a national labor organization - and therefore pressed for higher wages at Amoskeag since the code provided for rates equal to those paid by competitors.

The most numerous grievances, however, had no relationship to the wage rates. They concerned the application or non-application of the seniority ruling to lay-offs and discharges. Seniority was defined as

that quality which is applied to workers according to the number of years that they have been employed. . . . [that is,] in time of slackness in a department, the oldest person employed from the point of service has the preference of employment providing that that person is conversant and qualified to do the work that remains in operation.²

Since the overseer remained the judge of competence, the occasions for protest were numerous. From this it appears that the types of grievances did not differ greatly from those that existed while the Plan of Representation was in operation.

²From letter concerning UTW adjustments in company files.

As early as August 1933 many departments, believing that they had received less than they were entitled to under the code, notified the management that they were dissatisfied with the rates. They threatened stoppages if their demands were not satisfied. The management pointed out to the aggrieved operatives that a pay increase under the code would be given only upon their demonstration that they were receiving less than the wages paid for comparable work at competing mills. Accordingly, on October 10 the slasher tenders, for instance, submitted data on wages paid in their occupation at neighboring mills in Maine, Vermont, and Massachusetts and in Nashua, New Hampshire. Two weeks later, when the slasher tenders submitted a definite proposition, the management produced evidence showing that at least seven mills in the North paid less than Amoskeag for this job.

It was not until early November, however, that a final decision was made by the management on all wage increases. The broad terms of the code provided an easy escape. After mentioning that negotiations had extended over 2 months, the report went on to make the point that

the bulk of Amoskeag competition comes from Southern mills. Your committee has presented figures showing slasher tending rates of certain New England mills higher than present Amoskeag rates; we have presented figures showing as many New England mills about the same or lower than present Amoskeag rates. Only a very small percentage of our product is competitive with the New England mills listed in either of above groups.

Our production consists largely of gingham, handkerchiefs, tickings, outing flannels, chambrays, towelings, and print cloths. With the exception of print cloths, there isn't a mill of any consequence left in New England producing fabrics classified under the above groups. We are obliged to sell our products at exactly the same price basis as our Southern competitors, and our costs must be held as closely in line with the South as possible.

We have secured average wages of slasher tenders [say] from a group of competitive Southern mills, and their rate today averages 39.16¢ per hour, equal to \$15.66 per week. This is five or six dollars per week under the present Amoskeag wage.

.....

Further increases in rates at this time, widening the existing differentials between North and South,

will decrease production, employment and total payroll payments at Amoskeag.³

All that the management could suggest was that

under the provisions of the Cotton Textile Code, all mills are obliged to furnish the Cotton Textile Institute with their minimum, maximum and average rates per hour on all principal operations. Up to this time we have been unsuccessful in obtaining Consolidated reports of these wage figures for either the Northern or Southern sections of the industry. [We] would therefore suggest that the influence of your organization be used with the National Recovery Administration in Washington to have these Consolidated reports made up and distributed to members of the industry as well as recognized labor organizations within the industry. We are sure such a report would show a much greater spread between wages by operations, North and South, than the dollar differential provided for in the Code.⁴

Here the matter rested for several months until it was turned over to the National Industrial Relations Board for cotton textiles. Though the board in May granted increases of 5 to 10 percent in certain classifications, a strike was called which lasted for 3 days.⁵

A somewhat different conclusion attended a series of stretch-out complaints, as illustrated by what befell the weavers, battery hands, and room girls in the Bag Mill weaving department. On March 29, 1934, the weavers and ancillary workers in this department stopped all looms in order to enforce an adjustment in the work load. Although the management usually refused to negotiate while machinery was stopped, nevertheless in this instance the management did not insist on resumption of work before entering negotiations.

On April 2 the management met with the committee in order to learn the specific character of the grievances. Two days later the committee was convened to hear the management's answer which pointed out that

our agreement with the United Textile Workers of America provides that:

"Wages and tasks shall in general be based upon standards maintained by other comparable mills except

³Report made by the management to the slasher tenders, November 6, 1933 (UTW grievance files).

⁴*Ibid.*

⁵"Amoskeag Strike Status," *Textile World*, Vol. 84, No. 6 (May 1934), p. 124.

for differences specified in the Textile Industry Codes as finally adopted by the Government."

This provision states the limits to which the Company can go and continue in business.

With the exception of one adjustment sought, the management "regrets we are obliged to decline your requests." The statement went on to say, however, that

whether our understanding as to tasks in other comparable mills is correct is a question we are ready and willing to submit to arbitration.

We are ready to join you or your representatives in submitting this controversy to the Cotton Textile National Industrial Relations Board [of which Dr. Bruere is chairman] and to co-operate to the fullest possible extent in bringing about as quick a decision as possible.⁶

Upon the rejection of the committee's demands, the business agent of the union immediately arranged for a meeting with Dr. Bruere who was then in Manchester.

The meeting with Dr. Bruere and a group of aggrieved employees at union headquarters resulted in a promise by the operatives that they would continue at work pending further discussion of their case. But on the following day (April 5) the operatives who had not attended the meeting of the previous day refused to start their work, with the result that all operatives in that department went home as soon as they had been informed of the management's statement. It was only by the very determined effort of the executive board of the Textile Council that a complete yard walk-out was prevented.

The impasse was resolved on the following morning on the terms formulated by the union. Operations in the Bag Mill were to start up on this day for a 10-day period on the condition that the tasks on all jobs in the Bag Mill would be studied by three persons, one each appointed by the employer, the employees, and the National Industrial Relations Board. A week later the preliminary findings of the engineer calling for some reduction in the work load were submitted to the company and the union and were accepted by both.

This case, taking more than 2 weeks for settlement and involving a stoppage of work, was really expeditiously handled

⁶From reply made by the management to the grievance committee of the Bag Mill (UTW grievance files).

as compared, for instance, with the speed-up complaints of the Jefferson Mill weaving department, which were originated in early October 1933 and did not reach the arbitrator until the following March.

One other case is worth presenting. It indicates that Amoskeag attempted to follow the example of many other manufacturers who made increased use of learners since the latter were exempted from the minimum-wages provision of the code. Thus the slasher tenders notified the management that at a meeting on November 21 they

voted to request [the] Management to remove all learners from front of machines and place them in rear of machines for at least six months, learning in rear with the slasher helper.

Our reasons for requesting this change is that it has been the custom in the slashing department, up until the month of October, 1934, that all learners have been placed at rear of machine. We contend that any learner coming in slashing department should be placed on rear of machine with helper to first learn the fundamental parts of machines and work. Practically every helper is qualified to help instruct a new hand to first learn slashing, instead of placing a new hand that knows nothing about slashing in the front with a slasher who has at the present time all he can do to operate what machines he has to operate at present.⁷

The management made concessions at once. The learners were to be returned to the rear of the machines under the helper's supervision. It was also agreed that helpers should be given preference in learning slashing when they qualified.

Apparently the slasher tenders were no longer satisfied with the concessions they had requested and pressed for the dismissal of all slashers who had been learning for less than 6 months. The company rejected the demand and explained that it had been able to increase employment from the low point of 4,019 in 1932 to the then present level of 10,631 by virtue of its plan

to steadily increase its production until the volume allowed the Company to take orders at market price and insure steady work for its employees. This entailed the constant training of new hands to take care of the increased volume.

⁷From request of the Slasher Tenders' Special Committee to the management, November 28, 1934 (UTW grievance files).

This plan was suddenly interrupted when the slasher tenders made a demand that all learners on the slashers who have been learning less than 6 months be immediately discharged.

The Company could not see its way clear to accede to this demand without interrupting a program that increases employment in Manchester and reduces cost for the Company.

As the slasher tenders left their work it was necessary to close down machinery which put 7500 people out of work.⁸

A few days later a compromise was entered into that stopped short of dismissal of learners.

Another instance of the same type was registered by the battery hands in the Jefferson Mill case mentioned above. They claimed

that they get a learner put on with battery hand and then when learner is taught properly they take the learner off and leave the battery hand alone. There is the hindrance of teaching and then no relief after they have taught the learner; believe that after learner has been taught, learner should be put to work to relieve their task.⁹

How this was finally settled is not indicated.

These labor difficulties were not unique with Amoskeag. Grievances of this character were widely prevalent throughout the industry and provided the basis for the national textile strike in September 1934. The demands were formulated by the national office of the UTW and included (1) a 30-hour week with the same wages as a 40-hour week; (2) application of the wage differentials to semiskilled, skilled, and highly skilled workers; and (3) reduction in the work load.

Though the Amoskeag operatives were apathetic to a general strike at this time, they answered the strike call on September 4. The local labor leader insisted that the strike was not against Amoskeag but against all textile companies. As the company did not attempt to operate, picketing was unnecessary and no violence occurred. After 3 weeks of idleness the strike was called off, and the workers returned without any change in working conditions. It very probably also had little effect on Amoskeag's competitive position since it in effect replaced the usual summer shut-down.

⁸Statement made by the management, November 28, 1934 (UTW grievance files).

⁹From UTW grievance files (February 26, 1934).

The labor problems already enumerated, however, were not in themselves the cardinal problem in the field of labor relations either from the point of view of the management or the responsible trade-union leaders. This problem was the frequent stoppages of the machinery, referred to locally as "Chinese strikes" or "sit-downs" several years before the latter expression was incorporated into the national vocabulary. They began as early as August 1933 and extended through most of 1934. The initiating causes varied from forcing a member to pay back dues to exerting pressure for a readjustment of the work load. In any case, the stoppages were in violation of the bylaws of the union's constitution, which provided for a two-thirds vote of all the operatives and the sanction of the national council before machinery could be stopped. In April 1934 when a number of cases were in the process of arbitration, the president of the local had to issue a request to all members "to be patient and not participate in any stoppage of work."

The causes underlying this behavior were doubtless many. It may have been in part a reaction to the pent-up aggravation that had accumulated over a period of 9 years under the plan. The interminable delays in settling disputes were a probable contributing factor. It is likely, too, that there existed among the active operatives a naive interpretation of the labor guarantees of the National Industrial Recovery Act. That some of the business agents of the union were lacking in judgment or a full sense of responsibility also seems clear.

On the other hand, there is evidence indicating that the employment department engaged in espionage activities and had hired certain workers to fraternize with those active in trade-union affairs. A representative of the employment department made a survey of families occupying company tenements in the late fall of 1935. In his concluding report he urged that hereafter the privilege of renting a company tenement should be denied to "noncooperative" tenants, those "who have proven themselves detrimental to the policies of the Company and a menace to the neighborhood by their constant abuse of neighbors who do not agree with them on working conditions, agitators, and active members of the textile organization." To support his point, the noncooperative activity of each of 28 tenants

was described. The following are sample descriptions, with names deleted:

Mr. A can always be found in the midst of the agitators. Talks loud but his bark is worse than his bite. Has always been connected with ring-leaders of the union.

Mr. B is a very excitable fellow who never misses a meeting of the Loomfixers and when any trouble is on, Mr. B is not far away.

Mr. C is very active in union affairs - will be a candidate for business agent of Local 86-A if an election occurs.

Mr. D is prominent in Loomfixers Union - was prominent in the Loomfixers' Worsted Organization in 1912 when the Fixers were allied with the National Textile Union. Never misses attending the meetings. For a number of years Mr. D was tame and at times useful. Since May 1934 he has got back to his oldtime form.

Mr. E is active union worker, chairman of transportation when any outside work is going on such as arranging for flying squadrons.

Miss F occupies the tenement alone. She has participated in the flying squadrons. Can always be found doing picket duty when there is trouble and she is one of the very few women now attending meetings of Local 86-A. She is the constant companion of Mr. X whose rating is undesirable.

Mr. G's name does not get into the reports of union activities but I am reliably informed he is forever nursing some complaint and foments trouble without showing his hand.

It is apparent from a confidential memorandum in the files of the personnel office that the management was thinking of breaking off relations with the UTW toward the end of 1934 because of the frequency of the "Chinese strikes." With this in view the treasurer sought the advice of the Amoskeag personnel office. The observations that follow are excerpts from this memorandum written by the personnel office under the date of December 14, 1934.

The personnel office posed the question: "Can the leaders control certain groups of workers when they are making demands or requests that cannot be granted?" The answer given was that "past experience has proven that they cannot and by not having the control necessary, the experiment of our association with the U.T.W. has been costly."

The question then became: "If we were to cease negotiations with the regularly elected officers of the local union and negotiate with individuals or groups representing our employees, would we be any better off?"

The subsequent discussion developed the point that

we [the management] will have to negotiate through some arrangement. If it is decided to continue as at present, the advantage is the privilege of calling into any controversy the negotiating committee comprised of persons representing various groups in the mills. The influence and advice they might offer may be the means of adjusting a group dispute when it would not be possible for the group affected and the management to arrive at a solution. If we were to say that commencing in 1935 we are agreeable to meeting any employee or group of employees on matters concerning working conditions, and cease our negotiations as of present practice, I believe that we would be starting the year on the wrong foot. There is no denying but that immediately the loom fixers who have a separate charter, the wool sorters who also have a separate charter, and the dressers who are seeking a separate charter, would insist on having recognized a committee to negotiate with the management. The section men and card fixers would also group. The same may be said of the cloth finishers, dye house hands, spinners, weavers, and all along the line. Most any one of the above mentioned could tie up the plant, if they wished. This is unfortunate, nevertheless it is so. You would have the skilled workers remaining with the U.T.W., and instead of centralizing a medium of settling disputes it would cause a scattering of the workers into so many group organizations, each one depending on themselves, that it would be far more difficult to reach adjustments than it is at the present time.

This, incidentally, is an acknowledgment of the advantages of industrial unionism to the management.

Although the personnel office was satisfied that

70 percent of the employees in the mills would prefer no organization, being content to work out their own destinies, . . . 70 percent can be compelled through fear, criticism and persecution to fall in line with the minority. Therefore, having no knowledge of what the Federal Government may have in mind as to the future of the laborer and employer and knowing that the Company will have to deal with some form of organized workers under present laws, I believe we can make as much progress and be as

sure of uninterrupted production under the U.T.W. as we can if we would sever our relations and cause all sorts of groups to contend without any executive agency to make decisions or rulings.

To improve relations within this framework, the personnel office suggested that "more friendly relations be established between the overseer and his employees as well as contacts by the personnel man, which will have a tendency to bring about a better understanding and at least should be the means of preventing a petty matter to grow to the size where it is beyond control."

Another suggestion was "to make contacts in our city with the proper persons, keeping them informed as to our labor and trade problems and in this way make missionary workers for the interests of the Company and its employees and the general good of the whole community."

The concluding note of the memorandum stated that "[there is no] substitute we can make to improve conditions as regards to labor until such time as a sufficient number of the employees in the various groups will, of their own volition, offer or request the Company to sit in with them and devise some plan that both can profitably, peacefully, and continuously work under."

The occasion for this memorandum, as well as the memorandum itself, indicates that the trustees had not yet decided to close down the mills in order to force a reorganization or liquidation. It was not until April 1935, as related in chapter III, when difficulties were encountered in the renewal of bank loans, that the decision was taken to process inventories on hand and close down the mills. By September only about 1,000 workers remained on the pay roll, and in December a petition for reorganization was filed in the bankruptcy court. It is somewhat ironical that the best working conditions enjoyed by the Amoskeag workers in a decade and a half should have been in the last year or so of the company's existence.

APPENDIX E

EFFECT OF AMOSKEAG'S DECLINE ON EMPLOYMENT, EARNINGS, AND MIGRATION

The forces operating at Amoskeag made for short cyclical movements imposed upon a declining secular trend.¹ Within a given year there were rather extreme month-to-month fluctuations that were lacking in regularity of occurrence and hence did not trace out a seasonal pattern. Rather it was a manifestation of intermittent operations, which were affected, of course, by the phases of the cycles (see figures 3 and E-1). It is this degree of intermittent employment that can best be measured by available statistics, and it is this which most effectively reveals the effect of Amoskeag's decline on the character of employment and on earnings.

EMPLOYMENT AND UNEMPLOYMENT

The agent's explanation for intermittent operations was noted in appendix C. Because of the growing importance of the style factor it was too risky to manufacture for inventory. For the same reason, customers did not place large orders far in advance of delivery but resorted with increasing frequency to a policy of hand-to-mouth buying. This resulted in the bunching of orders for immediate delivery with the obvious concomitant of intermittent operations.

Some idea of the degree of intermittent employment may be had from a distribution of the actual periods of employment and no employment in certain years.² Before examining this distribution, it is well to review the general character of employment in each of the specified years.

From previous discussion it is clear that in 1923, the initial year for which employment data are analyzed, Amoskeag's cotton section was in a depressed condition, particularly during the latter part of the year, but the worsted section

¹The declining secular trend during these years was confined chiefly to the cotton section.

²Unless otherwise specified, measures of employment and unemployment used in this appendix are based on the sample of income-tax records (for description see appendix G). Workers were excluded for years in which their first accession or final separation occurred.

operated at a fairly high and even rate. The year 1928, the next in the series, was for both sections one of depression, intervening between the upswings of 1927 and 1929, although the cotton section was not so hard hit as in 1923. With the onset of the general business depression in 1930, operations in both sections went to lower levels; they improved considerably in the following year, only to give way to a new trough in 1932. In 1933, even before the inception of the NRA, recovery had begun in both sections. It was sustained in the cotton section throughout most of 1934, but in the worsted section a definite recession in activities occurred in that year.

It should be noted that this analysis presents weeks of some Amoskeag employment and weeks of no Amoskeag employment. No distinction is made between part-time and full-time employment and no allowance for the possibilities, which appeared to be limited, of employment other than with Amoskeag.

A relative distribution of periods of employment in weeks for the period 1923-34 is presented in table E-1. There were differences between men and women and between the cotton and worsted sections. Women tended to have a larger percentage of shorter periods of employment, and both men and women tended to have shorter periods in the years of recession than in the years of revival. The difference between the sections was largely due to the differences in the timing of their respective cyclical movements.

It is rather striking that about one-fifth of the employment periods of the men in the cotton section were only 1 to 4 weeks in duration, while one-quarter to one-third of the periods of work for the women were in the main of this very short duration. Equally eloquent of the intermittent character of employment is the fact that one-half of the employment periods of the men in the 3 depression years were only from 1 to 12 weeks in duration; in 2 of the other years, from 1 to 16 weeks; and in 1928, from 1 to 20 weeks. For the women in the 3 depression years, half the employment periods were between 1 and 8 weeks, and, in the 3 years of upswing, between 1 and 12 weeks long.

To the same effect, for both men and women in the cotton section, is the relatively negligible number of employment periods that were as long as 37 to 52 weeks. In only one

Table E-1.- PERCENTAGE DISTRIBUTION OF PERIODS OF EMPLOYMENT,
BY LENGTH OF PERIOD AND SEX OF WORKERS, IN THE COTTON
AND WORSTED SECTIONS, 1928-34^a

Year and sex	Total workers	Total periods	Percentage distribution of periods (weeks)														
			Total	1-4	1	2	3	4	5-8	9-12	13-16	17-20	21-24	25-36	37-48	49-52	
Cotton section																	
1923																	
Men	449	1,375	100.0	18.2	4.3	4.8	3.1	8.0	24.7	24.9	5.2	3.6	3.9	18.2	0.8	0.5	
Women	463	1,532	100.0	23.2	6.7	6.2	5.7	4.6	27.3	24.4	5.1	3.9	3.4	12.6	0.1	0	
1928																	
Men	352	834	100.0	19.3	6.5	4.5	3.5	4.8	12.7	7.4	5.9	24.7	2.9	22.7	1.4	3.0	
Women	357	957	100.0	25.3	8.6	5.7	4.6	6.4	15.8	12.9	9.2	18.7	3.6	12.1	0.8	1.6	
1930																	
Men	303	747	100.0	23.4	7.4	6.1	5.9	4.0	16.5	12.6	14.6	7.1	3.6	11.5	3.9	6.6	
Women	287	827	100.0	32.9	10.2	11.2	5.8	5.7	20.4	12.1	9.7	6.2	3.7	7.6	2.8	4.6	
1931																	
Men	301	792	100.0	21.6	8.3	7.2	3.8	2.3	14.7	8.6	25.0	3.7	4.0	19.7	0.2	2.5	
Women	275	809	100.0	30.3	9.0	10.6	5.1	5.6	16.2	11.7	17.7	3.6	5.2	14.1	1.0	0.2	
1932																	
Men	283	865	100.0	31.9	8.3	10.4	7.2	6.0	13.5	7.9	11.9	18.7	5.9	9.0	0.3	0.9	
Women	259	873	100.0	43.4	14.0	13.7	9.2	6.5	17.6	6.8	11.7	13.2	3.1	3.7	0.2	0.3	
1934																	
Men	411	1,067	100.0	18.1	4.9	4.4	4.8	4.0	13.6	8.4	28.1	2.1	2.3	26.6	0	0.8	
Women	351	1,071	100.0	28.6	8.9	7.8	7.6	4.3	15.2	9.2	23.5	3.7	3.1	16.7	0	0	
Worsted section																	
1923																	
Men	138	322	100.0	11.5	3.7	3.1	2.5	2.2	8.1	6.5	8.4	32.3	2.8	29.8	0	0.6	
Women	205	540	100.0	16.6	4.8	4.1	4.6	3.1	15.0	13.7	9.6	20.4	5.6	19.1	0	0	
1928																	
Men	126	323	100.0	18.9	5.9	4.6	2.2	6.2	6.8	6.5	5.0	33.7	1.6	22.9	0.9	3.7	
Women	195	521	100.0	23.6	6.3	7.3	5.0	5.0	11.1	9.0	6.0	24.4	4.8	17.9	0	1.2	
1930																	
Men	107	280	100.0	30.7	11.4	5.7	6.1	7.5	18.2	10.0	12.5	4.7	3.6	6.8	3.9	9.6	
Women	182	539	100.0	33.2	8.3	9.1	7.6	6.2	22.8	10.0	9.3	4.5	4.7	7.4	5.9	2.2	
1931																	
Men	101	218	100.0	24.8	11.0	6.0	6.0	1.8	14.7	6.9	9.2	4.1	4.1	15.1	8.7	12.4	
Women	188	461	100.0	28.2	11.5	5.9	6.5	4.3	14.5	11.3	10.4	5.9	3.5	11.9	9.5	4.8	
1932																	
Men	103	364	100.0	34.0	11.5	11.3	7.4	3.8	17.6	15.4	7.7	10.2	1.1	10.2	0.5	3.3	
Women	184	663	100.0	58.2	31.5	11.4	10.9	4.4	13.1	10.2	3.8	4.8	1.8	4.2	1.6	2.3	
1934																	
Men	128	375	100.0	30.7	9.1	8.8	9.6	8.2	12.0	12.5	22.9	2.9	3.2	15.5	0	0.3	
Women	213	665	100.0	44.8	26.8	6.1	8.1	3.8	16.6	8.6	15.1	4.2	1.5	9.2	0	0	

^aBased on an NRP tabulation of a sample of company income-tax records. Length of period is the number of consecutive weeks in which the worker had some employment.

instance, for men in 1930, did the cases exceed 10 percent, and in only one other instance, for women in 1930, did they exceed 5 percent.

Very much the same situation obtained in the worsted section, though here a somewhat larger percentage of the periods was of the longest duration, 37 to 52 weeks. However, instances of such long employment periods still did not account for a large number.

**Table E-2 - PERCENTAGE DISTRIBUTION OF PERIODS OF NO EMPLOYMENT,
BY LENGTH OF PERIOD AND SEX OF WORKERS, IN THE COTTON
AND WORSTED SECTIONS, 1922-34^a**

Year and sex	Total workers	Total periods	Percentage distribution of periods (weeks)										
			Total	1	2	3	4	5-8	9-12	13-24	25-51		
	Cotton section												
	1923												
	Men	449	1,103	100.0	14.2	33.1	6.3	3.6	24.6	6.0	7.8	4.4	
	Women	463	1,309	100.0	16.2	31.9	6.3	4.2	21.8	8.4	6.4	4.8	
	1928												
	Men	352	590	100.0	23.4	38.7	3.9	4.2	10.9	3.2	8.1	7.6	
	Women	357	758	100.0	29.4	30.3	6.5	4.6	7.7	4.1	8.6	8.8	
	1930												
	Men	303	564	100.0	40.5	15.6	5.5	2.3	10.6	6.0	9.2	10.3	
	Women	287	725	100.0	35.7	14.3	7.2	6.2	12.1	7.2	8.7	8.6	
	1931												
	Men	301	658	100.0	54.1	10.0	3.8	4.7	8.8	6.1	7.2	5.3	
	Women	275	787	100.0	16.4	10.6	6.0	5.2	14.6	10.9	23.5	12.8	
	1932												
	Men	283	748	100.0	31.3	13.6	20.3	5.7	10.3	5.9	7.0	5.9	
	Women	259	779	100.0	31.4	12.4	16.6	5.4	11.3	6.7	8.5	7.7	
	1934												
	Men	411	796	100.0	27.0	9.4	41.0	3.5	8.4	2.9	2.8	5.0	
	Women	351	896	100.0	30.8	9.5	33.9	4.5	8.2	4.1	4.0	5.0	
		Worsted section											
		1923											
		Men	138	231	100.0	58.0	11.3	4.3	2.6	7.4	3.0	7.3	6.1
		Women	205	454	100.0	46.2	17.6	5.7	2.9	8.4	6.0	7.3	5.9
1928													
Men		126	197	100.0	26.4	40.1	5.0	2.0	10.7	4.6	4.6	6.6	
Women		195	405	100.0	27.9	38.3	6.2	3.7	8.1	4.2	4.7	6.9	
1930													
Men		107	225	100.0	38.2	14.7	7.6	6.2	13.6	6.2	5.3	8.0	
Women		192	456	100.0	38.4	15.6	7.0	5.0	10.5	6.6	8.3	8.6	
1931													
Men		101	177	100.0	40.7	15.8	9.0	7.9	10.2	4.5	8.5	3.4	
Women		188	423	100.0	40.7	15.6	6.2	8.0	10.9	4.0	11.3	3.3	
1932													
Men		103	245	100.0	35.9	17.2	12.3	6.1	10.6	6.1	5.7	6.1	
Women		184	769	100.0	64.6	12.4	5.3	2.7	5.9	1.3	3.0	4.6	
1934													
Men		128	309	100.0	25.2	12.3	26.6	7.8	13.6	3.2	3.2	8.1	
Women		213	777	100.0	47.6	9.7	18.4	6.7	7.7	3.5	3.3	3.1	

^aBased on an NRP tabulation of a sample of company income-tax records.

As might be expected, most of the intervals in weeks of no employment at Amoskeag were of considerably shorter duration (table E-2). The percentage of such intervals that lasted for only 1 week was similar to the percentage of employment periods that were from 1 to 4 weeks in duration. Indeed, intervals of no employment lasting 1 to 4 weeks comprised upwards of 60 percent of all these intervals in most of the years. Intervals of no employment longer than 13 weeks generally accounted for only about 15 percent of the cases. There seems to be no real difference in the duration of the intervals of no employment experienced by the men and the women, except in 1931 in the cotton and in the following year in the worsted section.

Rates of Labor Turn-over

With intermittency established as a characteristic pattern, it is not unexpected to find that the labor turn-over was high. The records make it possible to measure turn-over on two different bases: the personnel record presents accessions and separations from the management's point of view, which is the usual basis and one which is followed by the United States Bureau of Labor Statistics; and the income-tax card with its record of actual spells of employment and unemployment presents accessions and separations from the workers' point of view. Both measures are given in table E-3, together with turn-over rates for cotton textiles generally as computed by the Bureau of Labor Statistics from 1930 through 1934.

For this 5-year period a comparison between Amoskeag and the cotton-textile industry in the United States can be made. The Amoskeag data cover all operations of the company and have been computed by the method used by the Bureau of Labor Statistics. With only one exception - the separation rate in 1932 - Amoskeag's turn-over rates were considerably higher than those for the industry.

The Amoskeag rates over the 11 years beginning with 1924 tend to increase as they approach the great depression. However, it is of special interest that the highest rates are for a pre-war depression year, 1914 (ending June 30); these rates were computed for Amoskeag by Paul F. Brissenden and

Table E-3.- LABOR TURN-OVER RATES FOR AMOSKEAG
AND COTTON-TEXTILE INDUSTRY, 1914-34

Year and type of rate	Amoskeag rate					Bureau of Labor Statistics rate for cotton textiles ^c
	Based on actual periods of employment and no employment ^a				Based on accessions and separa- tions ^b	
	Cotton section		Worsted section			
	Men	Women	Men	Women		
1914						
Accessions	n. a.	n. a.	n. a.	n. a.	117.5	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	123.0	n. a.
1923						
Accessions	256.6	295.2	176.8	224.9	n. a.	n. a.
Separations	245.7	282.7	167.4	221.5	n. a.	n. a.
1924						
Accessions	n. a.	n. a.	n. a.	n. a.	29.5	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	40.9	n. a.
1925						
Accessions	n. a.	n. a.	n. a.	n. a.	42.1	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	52.8	n. a.
1926						
Accessions	n. a.	n. a.	n. a.	n. a.	59.6	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	55.5	n. a.
1927						
Accessions	n. a.	n. a.	n. a.	n. a.	42.9	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	46.8	n. a.
1928						
Accessions	168.2	218.5	183.3	220.5	76.9	n. a.
Separations	167.6	212.3	156.3	207.7	67.2	n. a.
1929						
Accessions	n. a.	n. a.	n. a.	n. a.	99.9	n. a.
Separations	n. a.	n. a.	n. a.	n. a.	110.2	n. a.
1930						
Accessions	178.9	245.3	187.8	226.6	79.2	42.0
Separations	186.1	252.6	210.3	237.5	88.6	56.3
1931						
Accessions	216.3	273.5	173.3	223.9	77.0	47.4
Separations	218.6	286.2	175.2	225.0	82.2	53.5
1932						
Accessions	288.3	315.0	331.1	440.8	78.7	67.5
Separations	264.3	300.8	237.9	417.9	43.8	62.6
1933						
Accessions	225.2	163.6	216.3	281.3	110.1	63.6
Separations	287.5	363.0	288.4	361.2	73.9	56.5
1934						
Accessions	201.5	266.9	264.8	367.8	91.0	53.7
Separations	193.7	255.3	241.4	364.8	72.8	57.4

^aBased on an NRP tabulation of a sample of company income-tax records.^bFigures for 1914 are based on Paul F. Brissenden and Emil Frankel, *Labor turnover in industry* (New York: The Macmillan Co., 1922), pp. 176-7. Figures for remaining years are based on an NRP tabulation of company personnel records. Accessions and separations resulting from temporary lay-offs were not counted.^cAdapted from *Handbook of Labor Statistics: 1931 Edition* (U. S. Dept. Labor, Bur. Labor Statistics, Bull. No. 641, Sept. 1931), p. 669, and *Handbook of Labor Statistics: 1936 Edition* (Bull. No. 616, 1936), p. 606.

n.a. Data not available.

Emil Frankel and analyzed in their pioneer work on the subject of labor turn-over.³

Rates of labor turn-over from the workers' viewpoint were more than double those from the management's viewpoint since the latter disregarded temporary lay-offs. Rates upon the former basis have been computed for the Amoskeag sample by sections and by sex. Whereas the rates utilizing personnel records have been based on the average number employed during the year, the rates using a sample of the income-tax records are of necessity based on the total number of different persons employed. This serves to minimize the rate.

The differences in rates between the men and women are clearly disclosed. In only 1 out of 56 possibilities was the rate for women less than the rate for men - the accession rate in the cotton section in 1933. The fact of the higher rates for women suggests that they must have experienced a larger volume of no employment in a given year than the men despite the fact that the duration of intervals of no employment was about the same for both men and women. It is noteworthy also that for the last 3 years of the series the women in the worsted section had higher rates than the women in the cotton section.

Perhaps the most revealing indicator of the change in working conditions at Amoskeag is the contrast in the reasons for separations between those that occurred in the period following the 1922 strike and those that took place in the years that preceded the strike. When Amoskeag resumed its decline in the post-strike period after 1922, the percentage of employee separations decreased continuously and was much below the pre-strike level. That is, with the continual shrinkage of jobs at Amoskeag the workers were progressively more reluctant to leave on their own even for temporary periods. On the other hand, the percentage separated for employer reasons increased significantly in these years of Amoskeag's decline over the percentage in the years before the 1922 strike. The increase in the depression period was very sharp for the reason noted. Thus with adverse business conditions and perhaps as part of wage-negotiation tactics, the management was obliged with increasing frequency to initiate separations because of curtailment.

³*Labor Turnover in Industry* (New York: The Macmillan Co., 1922), pp. 176-7.

The changes in types of reasons for final separations did not differ materially from those for all separations. That is, employer reasons achieved much greater prominence after the strike, and in the depression period they accounted for half the final separations.

The distribution of final separations by specific reasons is presented in table E-4. About 15 percent of the final separations, on the average, were initiated by those leaving Manchester for any reason. The percentage continued on the same level through the post-strike period, 1923-26, although many of the separations in the later period must have taken place in 1922, the year of the strike, but were recorded as of 1923. As the industrial decline of Amoskeag and the region became accentuated in the so-called prosperity period and after, the percentage separated because of removal from the

Table E-4.- PERCENTAGE DISTRIBUTION OF FINAL SEPARATIONS
FOR SPECIFIC REASONS, BY PERIOD AND SEX,
1911-33^a

Period and sex	Number of final separations reporting reason	Percent due to -					
		Removal else- where	Other employ- ment	Sickness, accident, pregnancy, etc.	Super- annuation	Curtail- ment	Other reasons
Total							
Men	2,890	14.8	11.7	5.0	6.1	8.9	53.5
Women	1,803	15.4	4.8	16.4	4.8	10.8	47.8
1911-14							
Men	714	16.1	5.9	6.9	4.2	2.8	64.1
Women	370	15.4	3.2	17.3	5.9	1.9	56.3
1915-18							
Men	652	14.9	14.1	6.1	5.2	3.7	56.0
Women	325	17.8	3.7	17.8	7.7	3.7	49.3
1919-22							
Men	572	15.2	12.8	3.0	6.3	6.3	56.4
Women	400	15.0	6.2	17.8	2.8	6.0	52.2
1923-26							
Men	535	16.3	16.8	3.4	8.2	13.1	42.2
Women	386	17.5	4.6	13.9	4.6	14.2	45.2
1927-29							
Men	274	11.7	11.3	4.0	9.8	18.2	45.0
Women	177	16.4	7.9	17.0	2.8	17.5	38.4
1930- June 1933							
Men	143	7.7	7.0	5.6	2.8	39.9	37.0
Women	165	6.1	3.6	12.7	3.6	41.2	32.8

^aBased on an NRP tabulation of a sample of company personnel records. The NRA period is omitted because of the abnormal situation created by the shut-down.

city declined significantly, reaching about half the pre-strike level in the depression period. There were no material differences in the relative numbers between the men and women, suggesting that there were no sex differences with respect to geographic mobility among the Amoskeag workers, although this is not borne out by other data (see page 309).

This was not the case, however, with respect to occupational mobility as indicated by the percentage who left Amoskeag for other employment; that is, in the first four periods reviewed, significantly higher percentages of the men than of the women separated for this reason. With failing fortunes in later years, these percentages declined both for men and women.

Since reasons grouped under sickness also include pregnancy and withdrawal in order to keep house, it is but natural that relatively more women than men would initiate final separations for these related reasons. On the average, about 10 percent of all separations were so caused. Superannuation was reported as the reason in about 5 percent of the separations. In the three periods beginning with the post-war period, significantly higher percentages of men than of women were separated because of old age. This is in keeping with the fact that the men were a somewhat more aged group. This increase in the post-strike and prosperity periods coincides with the management's attempt to speed up production. Since curtailment accounts for the bulk of the employer reasons for final separations in the later years, no additional comment on the general trend is required here.

Total Weeks of No Employment

Although the intervals of no employment were of quite short duration, the high turn-over rates suggest that the volume of weeks of no employment in a given year would be considerable. This can be shown in several ways. One method consists of expressing the number of weeks of no employment in a given year as a percentage of the total number of man-weeks that were available for employment in that year. The latter is the product of the total number of persons employed in a given year and 52, the total number of weeks in a calendar year. These ratios are presented in table E-5.

Table E-5.- NUMBER OF WEEKS OF NO EMPLOYMENT AS A PERCENTAGE OF TOTAL NUMBER OF MAN-WEEKS AVAILABLE FOR EMPLOYMENT IN THE COTTON AND WORSTED SECTIONS, 1923-34^a

Year	Total man-weeks		Number of weeks of no employment as percent of total man-weeks	
	Cotton section	Worsted section	Cotton section	Worsted section
1923	48,258	18,304	31.1	21.4
1928	37,180	17,368	24.8	20.4
1930	31,980	15,860	31.7	29.5
1931	30,940	15,444	26.3	21.4
1932	28,184	15,288	34.6	28.7
1933	34,112	17,420	25.7	24.6
1934	40,092	18,044	20.8	27.0

^aBased on an NRP tabulation of a sample of company income-tax records.

These computations disclose the fact that in the cotton section for specified years between 1923 and 1933, from one-quarter to one-third of the total man-weeks were weeks of no employment. In 1934 this was reduced to one-fifth. The ratios for the worsted section were on a somewhat lower level than for the cotton section, with the exception of 1934. The consistency of the results suggests that even when the differences might be due entirely to sampling errors, they are nonetheless real differences, particularly since they agree with differences in the respective profit records of the sections.

Another and more revealing way of making the same point is to present a percentage distribution of the Amoskeag workers according to the total number of weeks of no employment at Amoskeag in each of the specified years. This is shown for each of the three sections in table E-6.

In the cotton and worsted sections the group whose weeks of no employment in a year did not exceed 4 (that is, those who had the most employment) accounted for from 22 to 50 percent of all the workers, depending upon the phase of the cycle. The higher percentages obtained, obviously, in the years of an upswing. The smallest percentage was found in the cotton

Table E-6.- PERCENTAGE DISTRIBUTION OF WORKERS, BY TOTAL WEEKS OF NO EMPLOYMENT AND SECTION, 1923-34^a

Year and section ^b	Total workers	Percentage distribution by total weeks of no employment			
		4 or less	5-13	14-26	27 or over
1923					
Cotton	917	6.3	52.1	23.9	17.7
Worsted	343	53.4	18.9	11.1	16.6
General	149	63.1	22.8	6.0	8.1
1928					
Cotton	703	46.4	22.2	11.9	19.5
Worsted	326	51.9	23.0	10.7	14.4
General	87	75.9	11.5	6.9	5.7
1930					
Cotton	605	34.9	17.4	20.6	27.1
Worsted	299	36.1	22.4	16.1	25.4
General	61	80.3	8.2	0	11.5
1931					
Cotton	585	42.1	22.9	13.6	21.4
Worsted	291	46.4	24.1	14.4	15.1
General	61	85.3	4.9	4.9	4.9
1932					
Cotton	533	21.6	28.5	22.7	27.2
Worsted	288	34.4	26.4	15.6	23.6
General	55	70.9	7.3	9.1	12.7
1933					
Cotton	645	38.3	25.7	18.3	17.7
Worsted	329	31.0	37.4	16.7	14.9
General	66	66.7	7.6	16.6	9.1
1934					
Cotton	758	46.4	29.3	11.9	12.4
Worsted	342	27.8	39.8	14.3	18.1
General	74	75.7	23.0	0	1.3

^aBased on an NRP tabulation of a sample of company income-tax records.

^bThe general section includes mechanical, maintenance, and central-office staffs.

section⁴ and the largest in the worsted section. Indeed, in the first 5 years of the series the percentages in the worsted section were higher than those in the cotton section.

At the other extreme, as many as 12 to 27 percent of the workers had 27 weeks or more of no employment in a year.

⁴But the 6.3 percent in the cotton section in 1923 was clearly very exceptional.

The higher percentages were associated with the years of a downswing. In all years of the series except 1934 the worsted section had a smaller percentage of its workers falling in this classification than was the case in the cotton section.

Among the intermediate groups, from 17 to 40 percent of the operatives (except in 1923) had from 5 to 13 weeks of no employment without any clear relationship to cyclical fluctuations. The percentages in the remaining class, with 14 to 26 weeks of no employment, varied from 11 to 24, with the larger percentages coinciding with the depression years.

In the general section, including the mechanical, maintenance, and central-office staffs, the distribution was quite different since these workers for the most part represented a fixed overhead cost. Accordingly, from 63 to 85 percent of these workers had only 4 weeks or less without employment, and only 1 to 13 percent had more than a half-year without employment in a year. In the case of the two intermediate groups, the larger fraction fell in the classification of 5 to 13 weeks of no employment in most years. There were no clear-cut cyclical variations since employment in this section, to the extent that it was not part of overhead, was conditioned by the volume of employment in the other two sections, and these two sections did not always agree in the timing of their seasonal or cyclical movements.

Part-Time Employment, 1934

Since the measurements discussed in the preceding paragraphs have made no allowance for part-time employment, the volume of unemployment has been minimized thereby. This defect can be remedied for the year 1934 when the company entered on the income-tax cards the weekly hours worked as well as the amount of the weekly earnings. With the working conditions and the volume of production in this and other years in mind, some inferences about part-time employment in other years may be ventured. Among the special considerations applicable to 1934 was the 40-hour week compared with the 54-hour week in all the other years of our series except during the latter part of 1933. It should also be remembered that the cotton section maintained operations at a rather high level in 1934, while the worsted section was in a moderately depressed condition.

Another special consideration was the existence in 1934 of a bona-fide trade union which was better able to carry out the operatives' demand for the "alternating of work", that is, for sharing the work - a factor doubtless tending to increase the extent of part-time employment.

The extent of full- and part-time employment for this year is set forth in table E-7. While there had been some employment in four-fifths of the potential man-weeks of employment in the cotton section in 1934 (table E-5), only a little more than half of these weeks of employment involved full-time employment. In more than one-fourth of the weeks there was employment equal to more than 3 but less than 5 days per week. The remainder of the weeks of employment, only slightly less than one-fifth of the total, provided employment equal to 3 days or less per week.

Table E-7.- PERCENTAGE DISTRIBUTION OF WEEKS OF EMPLOYMENT IN THE COTTON AND WORSTED SECTIONS IN 1934, BY NUMBER OF HOURS OF EMPLOYMENT^a

Section	Total weeks of employment	Percentage distribution by number of hours of employment		
		24 or less	25-39	40 or over
Cotton	30,621	18.7	27.5	53.8
Worsted	12,563	33.2	27.9	38.9

^aBased on an NRP tabulation of a sample of company income-tax records.

The worsted section, being in a less prosperous condition than the cotton section in this year, had still less full-time employment - only 39 percent of all weeks with some employment. The percentage of weeks that yielded more than 3 but less than 5 days of employment was almost the same as that in the cotton section, while in as many as one-third of the weeks there was employment of 3 days or less.

Even this showing, however, very probably represents part-time employment at a minimum in the 7 years under discussion, especially if full-time employment in other years is based on a 54-hour week. This would have to be the standard if our main interest in measuring partial employment was its effect on earnings, since the hourly rates were set so as to result

in the same full-time wage in the 54-hour week as in the 40-hour week.

Incidence of Unemployment

Even an allowance for partial employment does not complete the refinements that might be made in order to describe the character and volume of employment that prevailed at Amoskeag in these years. It is necessary to examine the incidence of unemployment among the Amoskeag workers within a section.

At first thought one might expect the incidence to vary with the degree of skill of the worker, the more skilled having less unemployment. A few observations, however, suggest that this could not have been the case. One such observation refers to the fact that Amoskeag was an integrated plant embracing all the processes of manufacturing and finishing. Therefore the skills complemented one another, and the production of a given type of cloth would employ all the skills in a certain proportion but with definite leads and lags.

Another consideration is the fact that the skilled workers, who ordinarily would be expected to have less unemployment than those less skilled, are not so highly skilled in cotton and worsted textiles that they would be retained during slack periods in order to obviate the risk of a shortage of skilled workers on the resumption of operations. This attitude is confirmed by the remarks of the company agent recorded in the minutes of a meeting of the representatives of the cotton section on September 7, 1926. There was a "report from Coolidge weaving delegates that they were called into a meeting with Agent Straw on Tuesday, September 6, 1926, whereat he notified them that he was going to shut down the weaving in this mill for a period of three or four weeks and would possibly start it up then as it should be started up; also requested the weavers and loom fixers [who are among the highest skilled workers] not to leave town." Accordingly, one would expect the incidence of unemployment in relative terms to be about the same for the skilled, semiskilled, and unskilled workers, as is borne out by statistical evidence. (See table E-8.)

The variation in incidence that appeared to be significant was the variation between the married women workers and all the others. This is clearly revealed by tables E-9 and E-10,

**Table E-8.- PERCENTAGE DISTRIBUTION OF COTTON WORKERS,
BY TOTAL WEEKS OF NO EMPLOYMENT AND DEGREE OF SKILL
AT LONGEST OCCUPATION, 1923-34^a**

Year and degree of skill	Total workers	Percentage distribution by weeks of no employment			
		4 or less	5-13	14-26	27 or over
1923	917	6.3	52.1	23.9	17.7
Skilled	328	5.8	57.7	20.9	15.8
Semiskilled	479	6.0	49.1	25.3	19.6
Unskilled	112	8.9	49.1	26.8	15.2
1928	703	46.4	22.2	11.9	19.5
Skilled	194	46.9	19.6	13.4	20.1
Semiskilled	442	43.4	24.9	11.8	19.9
Unskilled	67	64.2	11.9	9.0	14.9
1930	605	34.9	17.4	20.6	27.1
Skilled	186	32.5	18.1	24.7	24.7
Semiskilled	376	34.8	17.6	18.1	29.5
Unskilled	63	41.3	14.3	25.4	19.0
1931	585	42.1	22.9	13.6	21.4
Skilled	162	41.4	20.4	17.3	20.9
Semiskilled	381	41.3	24.1	12.5	22.1
Unskilled	62	46.4	22.6	11.3	17.7
1932	533	21.6	28.5	22.7	27.2
Skilled	145	17.9	29.7	24.8	27.6
Semiskilled	330	22.1	27.0	21.2	29.7
Unskilled	58	27.6	34.5	25.8	12.1
1933	645	38.3	25.7	18.3	17.7
Skilled	174	40.8	26.4	16.7	16.1
Semiskilled	403	35.5	25.6	20.6	18.1
Unskilled	68	48.6	23.5	8.8	19.1
1934	758	46.4	29.3	11.9	12.4
Skilled	186	49.5	27.4	12.4	10.7
Semiskilled	463	44.1	28.8	13.2	13.9
Unskilled	89	52.8	36.0	3.3	7.9

^abased on an NRP tabulation of a sample of company income-tax records. For classification of occupations by degree of skill, see appendix G.

in which total unemployment is broken down by marital status of the workers at the time of final accession to the pay roll.⁵ In table E-9 the annual duration of weeks of no employment of the married women is contrasted with that of the single women.

Of primary interest are the relative numbers that compose the extreme classifications. In the cotton section a much larger percentage of single women than of married women experienced only 4 weeks or less without employment in a given year. This was true in each year, although in 1923 both the percentages and the difference between them were small. Excluding this

⁵This procedure involves some offsetting errors. That is, presumably some of those who were married at final accession had been single in the earlier years of our tabulations. On the other hand, some designated as single at final accession married before final separation. In view of the high turn-over rates it is unlikely that a long period would intervene between final accession and final separation.

Table E-9.- PERCENTAGE DISTRIBUTION OF WOMEN IN THE COTTON AND WORSTED SECTIONS, BY TOTAL WEEKS OF NO EMPLOYMENT AND MARITAL STATUS, 1923-34^a

Year and marital status	Cotton section					Worsted section				
	Total women	Percentage distribution by total weeks of no employment				Total women	Percentage distribution by total weeks of no employment			
		4 or less	5-13	14-26	27 or over		4 or less	5-13	14-26	27 or over
1923										
Married	333	2.40	49.85	23.42	24.33	126	34.92	19.84	19.84	25.40
Single	76	5.26	53.95	28.95	11.84	52	57.69	25.00	7.69	9.62
1928										
Married	261	27.59	29.50	13.03	29.88	125	33.60	26.40	16.00	24.00
Single.	57	49.12	28.07	12.28	10.53	45	57.78	20.00	17.78	4.44
1930										
Married	229	24.02	15.28	21.83	38.87	120	24.17	20.83	18.33	36.87
Single	48	50.00	16.67	20.83	12.50	44	40.91	22.73	18.18	18.18
1931										
Married	260	31.15	24.62	18.85	25.38	116	30.17	25.00	18.10	26.73
Single	50	40.00	30.00	12.00	18.00	46	52.17	30.43	4.35	13.05
1932										
Married	184	8.70	24.46	25.54	41.30	108	25.00	24.07	17.59	33.34
Single	47	19.15	27.66	29.79	23.40	50	40.00	22.00	20.00	18.00
1933										
Married	224	19.20	32.14	26.79	21.87	122	20.49	33.61	25.41	20.49
Single	51	37.25	21.57	29.42	11.76	58	29.31	48.28	10.34	12.07
1934										
Married	263	31.18	33.46	16.35	19.01	114	16.67	42.10	18.42	22.81
Single	61	39.34	36.07	9.84	14.75	62	30.65	45.16	9.68	14.51

^aBased on an NRP tabulation of a sample of company income-tax records.

year, the range for the single women was from 19 to 50 percent; for the married women, from 9 to 33 percent.

At the other extreme, among those whose weeks of no employment totaled 27 or more in a given year, the relative differences were equally large, with the married women having the larger percentages in each year. From 17 to 40 percent of the married women and from 10 to 23 percent of the single women were without work for more than half the year.⁶ In the

⁶As far as the authors have been able to determine from other sources, the company had no policy of discriminating against married women that might influence these data.

intermediate classifications the differences were small and not consistently in one direction.

The same pattern existed in the worsted section, with the magnitude of the differences about the same and with complete consistency in their direction with respect to those with the fewest weeks of no employment and those with the most weeks of no employment.

A somewhat different picture is presented by a similar table for the married and single men (table E-10). With few exceptions, the differences in the percentage distribution

Table E-10.- PERCENTAGE DISTRIBUTION OF MEN IN THE COTTON AND WORSTED SECTIONS, BY TOTAL WEEKS OF NO EMPLOYMENT AND MARITAL STATUS, 1923-34^a

Year and marital status	Cotton section					Worsted section				
	Total men	Percentage distribution by total weeks of no employment				Total men	Percentage distribution by total weeks of no employment			
		4 or less	5-13	14-26	27 or over		4 or less	5-13	14-26	27 or over
1923										
Married	287	7.67	52.61	22.65	17.07	86	60.46	12.79	11.63	15.12
Single	67	7.46	43.28	31.35	17.91	15	66.67	6.67	13.33	13.33
1928										
Married	222	50.45	18.47	13.51	17.57	71	61.97	19.72	8.45	9.86
Single	53	60.38	15.09	9.43	15.10	20	50.00	20.00	0	30.00
1930										
Married	176	36.93	19.32	18.18	25.57	65	30.77	29.23	16.92	23.08
Single	59	33.90	13.56	22.03	30.51	22	31.82	27.27	9.09	31.82
1931										
Married	177	48.02	20.34	11.30	20.34	61	47.54	21.32	14.75	16.39
Single	57	42.11	28.07	3.51	26.31	18	44.44	22.22	27.78	5.56
1932										
Married	187	22.16	32.93	21.56	23.35	59	37.29	25.42	10.17	27.12
Single	50	22.00	32.00	20.00	26.00	19	21.05	42.11	10.53	26.31
1933										
Married	211	42.65	22.75	12.32	22.28	69	33.34	42.03	13.04	11.59
Single	67	38.80	20.90	11.94	28.36	25	36.00	32.00	12.00	20.00
1934										
Married	231	48.92	25.97	11.69	13.42	84	30.95	23.81	17.86	27.38
Single	96	56.25	25.00	9.37	9.38	21	23.80	38.10	19.05	19.05

^aBased on an NRP tabulation of a sample of company income-tax records.

according to marital status were small and completely lacking in uniformity in the direction of the differences. The few large differences, moreover, were not so large that they could not be due to sampling errors. In view of this evidence and the absence of any reason for expecting any difference in the duration of unemployment between married and single men, it may safely be concluded that no such differences existed.

The Labor Reserve

These relationships call into question the entire problem of the labor reserve. It needs no elaboration that an industry or plant subject to cyclical fluctuations must draw upon a reserve of workers to augment its staff during the period of expansion from revival to the peak of operations. On the downswing, it is to industry's advantage to return these workers to the labor reserve without any financial obligations upon industry for maintaining their availability and employability until they are once more offered employment. At several points it has been mentioned that Amoskeag, like the textile industry generally, has been subject to the short cycles and hence had need for such a reserve.

A labor reserve is also necessary, however, to handle the short, sharp swings upward and downward that occur within the cyclical movements. In the case of Amoskeag these short fluctuations were of an intermittent character resulting from the irregular bunching of orders for immediate delivery. Its reserve, therefore, was a joint one arising from both the cyclical and the intermittent demands.

It is highly pertinent to a description of employment conditions to examine the extent and character of the stratification among the Amoskeag workers resulting from the necessity of maintaining a labor reserve.

Size of the Labor Reserve.— The magnitude of the labor reserve in relative terms can be set forth by several sets of relationships. One evidence of a labor reserve is the fact that a considerable number in excess of those actually employed in a given week were retained without pay on the pay-roll record. That is, the names of the excess workers were kept on the pay roll, and such workers were thereby made to feel that they should be on tap.

For the 10 years beginning with 1925 there exist weekly records based on the personnel files of the number on the pay roll and of the number who actually received some employment. A weekly average for each month has been computed for each series, and the average number actually employed has been expressed as a percentage of the average number on the pay roll. These percentages are given in table E-11.

Table E-11.- AVERAGE NUMBER OF AMOSKEAG WORKERS ACTUALLY EMPLOYED AS A PERCENTAGE OF THE AVERAGE NUMBER ON THE PAY ROLL, 1925-34^a

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1925	91.6	94.7	100.0	100.0	100.0	94.0	77.9	88.4	71.0	92.9	94.5	95.2
1926	88.5	89.3	89.5	88.5	88.9	84.3	79.9	52.9	84.7	88.4	89.2	84.6
1927	88.9	88.4	89.5	88.7	89.8	88.5	87.2	55.2	83.8	90.7	92.9	99.9
1928	89.1	88.5	87.4	89.4	89.0	88.7	85.6	52.3	86.0	89.0	92.7	93.0
1929	94.0	92.6	95.2	95.1	94.0	92.2	87.3	44.7	86.2	90.7	88.9	85.7
1930	86.0	82.8	84.2	77.9	74.4	76.4	74.4	70.2	78.9	74.1	68.8	69.5
1931	72.7	78.8	88.2	89.7	85.4	83.6	83.9	78.4	66.7	77.5	74.3	67.3
1932	64.9	72.4	75.7	85.4	77.2	72.8	75.1	65.1	82.0	81.0	83.2	86.3
1933	85.9	94.5	97.0	92.2	74.8	94.0	92.9	90.0	88.5	88.7	80.6	80.7
1934	83.0	90.8	89.6	87.2	86.6	80.8	76.8	79.6	44.9	87.9	87.5	87.3

^aBased on an NRP tabulation of miscellaneous company records and represent averages of weekly figures. The number employed is the number who received some employment during the week.

On the average, Amoskeag employed in the neighborhood of 85 percent of the workers retained on the pay roll with the percentages ranging between 85 and 95 in slightly more than half the months. During periods of rising production the percentage utilization of operatives on the pay roll was higher, but during periods of depressed activity it tended to be lower. The extremely low percentages may be explained by shut-downs either for the summer holiday or because of strikes, such as the one in September 1934. Thus, in order to ensure economical operations during the intermittent spurts, the management deemed it necessary to have in reserve on the pay roll from 15 to 25 percent in excess of those employed at the intermittent low points. The reserve available for cyclical upswings would be reflected in the additions to the number on the pay roll which, of course, are not disclosed by these percentages.

Another way of indicating the existence and magnitude of the reserve as well as labor turn-over is to relate the actual average weekly number employed in a given year to the total

number of different individuals employed in the course of the same year. A count of the number of income-tax cards in use for a specific year should closely approximate the latter figure. This relationship is set forth in table E-12.

Table E-12. - ACTUAL AVERAGE WEEKLY NUMBER OF AMOSKEAG WORKERS AS A PERCENTAGE OF THE TOTAL NUMBER EMPLOYED DURING THE YEAR IN THE COTTON AND WORSTED SECTIONS, 1928-34^a

Year	Total number of different persons employed during the year		Average weekly number of persons who received some employment		Average as percent of total	
	Cotton section	Worsted section	Cotton section	Worsted section	Cotton section	Worsted section
1928	8,530	5,313	5,348	2,183	62.7	41.1
1930	9,202	4,263	4,106	1,859	44.6	43.6
1931	6,565	4,279	4,050	2,260	61.7	52.8
1932	5,149	2,743	2,975	1,671	57.8	60.9
1933	8,671	3,216	4,562	2,311	52.6	71.9
1934	7,116	3,486	6,190	1,932	87.0	55.4

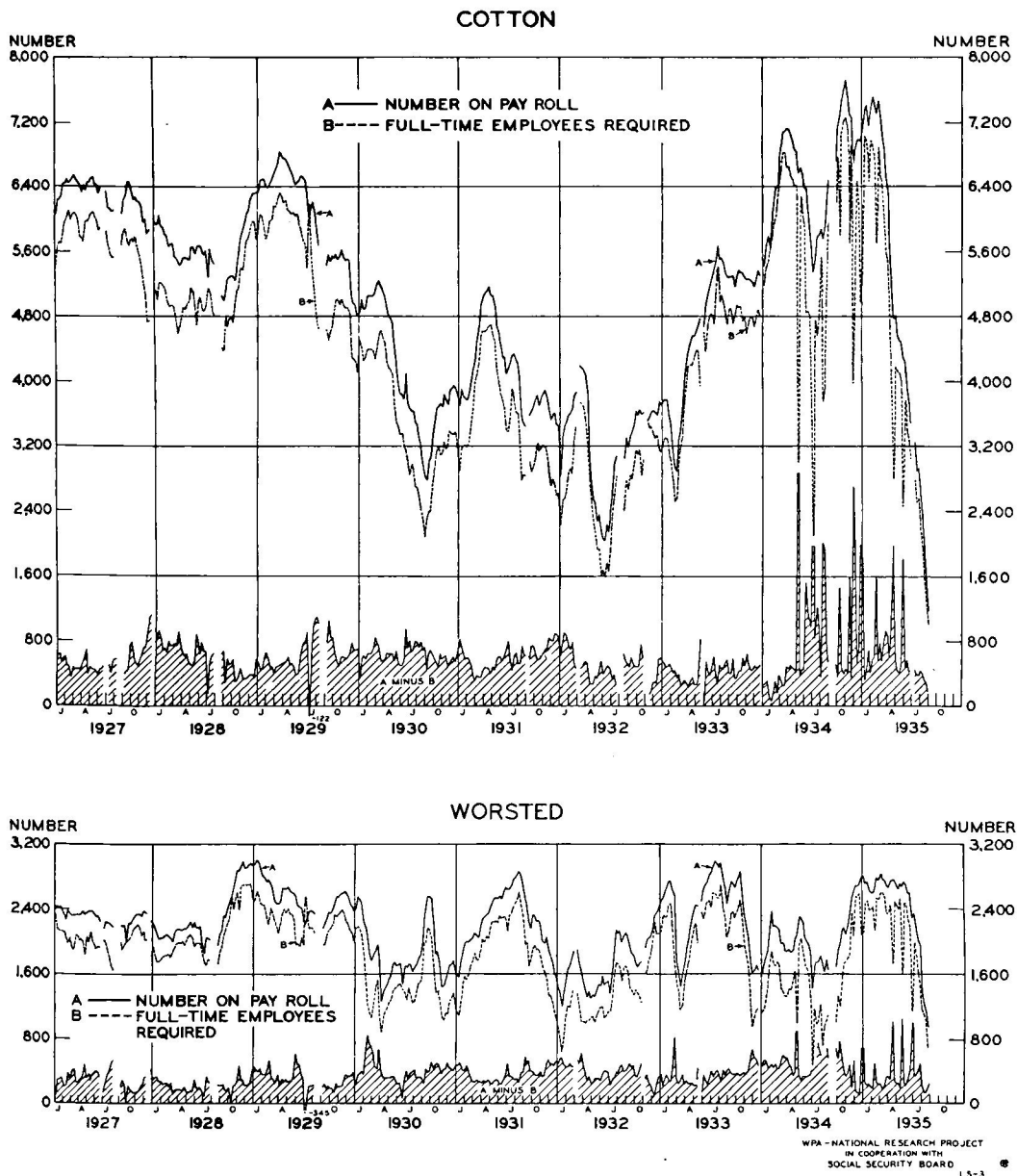
^aData from *Work and Wages at the Amoskeag Manufacturing Company Mills, 1927-35* (WPA National Research Project in cooperation with Social Security Board, Bureau of Research and Statistics, Apr. 1937), p. 10.

It appears from this that to have employed a certain weekly average of textile workers over a year, it was the practice at Amoskeag, generally speaking, to have given employment during the course of the year to from one and one-half to two times the average number.

Further indicators of the labor reserve are represented by figure E-1 and table E-7. The chart shows part-time employment as evidenced by the difference between the number of persons on the pay roll and the number of full-time employees required, as computed by the Amoskeag paymaster for each week in the years 1927-35. The data in the table throw light on how the part-time employment was distributed in the year 1934.

Composition of the Labor Reserve.- Although enough evidence has been presented to indicate that the married women constituted a large fraction of the labor reserve, this is insufficient to identify the reserve adequately. For example, there remains the important question as to whether its personnel

Figure E-1.- NUMBER OF PERSONS ON PAY ROLL AND ESTIMATED NUMBER OF FULL-TIME EMPLOYEES REQUIRED EACH WEEK, 1927-35, FOR THE COTTON AND WORSTED SECTIONS



Equivalent full-time employment was calculated by the Amoskeag paymaster. It is based on the prevailing workweek (54 hours through July 14, 1933, and 40 hours thereafter), adjusted for holidays. (After June 1934 it apparently was not the practice to adjust for holidays.)

Each break in the series was verified as a shut-down or strike recorded in notices or other records in the company's files. (This verification was not possible for 1932.) Some men for maintenance, etc., were of course at work during these periods, but the number was so small that it was not charted even when it was included in the paymaster's records.

The shaded area (A minus B) in the lower portion of each section of the chart indicates the difference between the number of persons on the pay roll (line A) and the estimated number of full-time employees required (line B).

Reprint of chart 3 from *Work and Wages at the Amoskeag Manufacturing Company Mills, 1927-35* (WPA National Research Project in cooperation with Social Security Board, Bureau of Research and Statistics, Apr. 1937).

shifts continuously from year to year or whether there is evidence of continuity in the reserve group. To determine whether there had been a stratification of workers, all operatives in the 10-percent sample of the personnel files whose weekly employment records were available for 1928 and 1930 through 1934 were constituted a subsample for this inquiry. This procedure yielded a sample of 821 cases.

From table E-6 it is evident that from one-half to three-quarters of the operatives in each section - depending on the phase of the cycle - could count on at least 39 weeks of Amoskeag employment and 13 weeks without Amoskeag employment in any year. On this basis, employment for at least three-quarters of the year may be regarded as the "normal" expectation. This division forms part of the qualifying conditions for determining those who were regularly employed and those who regularly formed the reserve. This count excludes the casual or "floating" labor reserve. Thus if an operative had had at least 39 weeks of employment in 4 of the 6 years, he was classified as having belonged to the group of regularly employed. If, however, an operative had been employed fewer than 39 weeks in 4 of the 6 years, he was considered to have belonged to the labor reserve. In 80 cases, there were 3 years in which annual employment amounted to at least 39 weeks and 3 years in which it was less. These 80 cases were eliminated from further consideration, leaving a sample of 741. Of this number, 542 cases composed the regular employees, and 199, or 27 percent, the intermittent labor reserve.

An examination of the characteristics of each group is instructive. Whereas the group which was regularly employed was about equally divided between men and women (the men represented 56 percent), more than two-thirds (69 percent) of the persons in the intermittent reserve were women.

The age distribution by sex for each of the two strata is revealing. Among the regularly employed men there was a more or less equal concentration in each of the three 10-year intervals between ages 35 and 64, with slightly over 70 percent falling in these rather advanced age groups and only 20 percent in the intervals under 35 years of age. The women with regular employment were a decidedly younger group. Almost 63 percent were between the ages of 25 and 44. Some 28 percent, however, were aged 45 or over. (Table E-13.) This difference in age

between the men and women operatives of the regularly employed is in keeping with the difference observed among a much larger sample of Amoskeag workers over a 25-year period. The women generally entered the mill at an earlier age than the men and also separated finally from it at an earlier age.

Table E-13.- PERCENTAGE DISTRIBUTION BY AGE OF A SPECIAL SAMPLE OF WORKERS, BY EMPLOYMENT STRATUM AND SEX^a

Age in years as of final separation in 1935	Regularly employed		Labor reserve	
	Men	Women	Men	Women
Total				
Number ^b	303	238	61	136
Percent	100.0	100.0	100.0	100.0
20-24	4.9	8.8	16.4	6.6
25-34	15.2	27.7	18.0	22.1
35-44	23.4	34.9	18.0	41.2
45-54	26.8	20.2	21.3	22.8
55-64	20.8	6.7	19.7	6.6
65 or over	8.9	1.7	6.6	0.7

^aBased on an NRP tabulation of company income-tax and personnel records. Covers employment during 1928 and 1930-34. See text for description of sample.

^bExcludes one man regularly employed and one man and one woman in the labor reserve whose ages are unknown.

In this respect the intermittent force differs considerably. The men in the labor reserve were about equally distributed among five age groups between the years 20 and 64. Forty-one percent of the women in this classification were concentrated in the age group of 35 to 44 years. That the women in the labor reserve were an older group than the women with regular employment is suggested by the fact that 64 percent of the former were between the ages 35 and 54 compared with 55 percent of the regularly employed women. The relative numbers aged 55 or over were about the same.

These differences may be presented in still another way by showing the percentage distribution between the regularly employed and the reserve according to the total number of operatives in each age group (table E-14). This makes it clear that a smaller proportion of the younger men - particularly those between 20 and 24 years of age and, to a much lesser

extent, those between 25 and 34 - was counted among the regularly employed than was the case with the older men.

Table E-14.- PERCENTAGE DISTRIBUTION BY EMPLOYMENT STRATUM OF A SPECIAL SAMPLE OF WORKERS, BY AGE AND SEX^a

Sex and employment stratum	Total workers	Age in years					
		20-24	25-34	35-44	45-54	55-64	65 or over
Men, total							
Number	364	25	57	82	94	75	31
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Regularly employed	83.2	60.0	80.7	86.6	86.2	84.0	87.1
Labor reserve	16.8	40.0	19.3	13.4	13.8	16.0	12.9
Women, total							
Number	374	30	96	139	79	25	5
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Regularly employed	63.6	70.0	68.7	59.7	60.7	64.0	80.0
Labor reserve	36.4	30.0	31.3	40.3	39.3	36.0	20.0

^aSee table E-13, ftms. a and b.

Among the women, however, the opposite prevailed. That is, in the two younger age groups a larger fraction was among the regularly employed than was true of the older women. Although generalization is made difficult by virtue of the smallness of the numbers, nevertheless it may be significant that a higher percentage of the women between the ages of 55 and 64 was among the regularly employed than the comparable percentages in the two immediately preceding decennial age groups. If this should be a real difference, it might be explained by the fact that when the housewife reaches the age of 55 or thereabouts, the once dependent children have reached maturity and possibly assumed household responsibilities of their own so that the housewife is once more free to undertake millwork on a regular basis.

Other characteristics must be surveyed before each stratum can be completely identified. One such item is the length of attachment to Amoskeag, that is, the interval between

first accession and final separation. This distribution is given in table E-15. There can be no doubt that the men in the group who were regularly employed were old-time Amoskeag workers. Some 60 percent had been there for a period of 20 years or more and 80 percent for at least 15 years. While the men in the labor reserve characteristically had attachments of a much shorter duration, they could not be regarded as newcomers since as many as 63 percent had had some Amoskeag employment over a period of at least 15 years. Very much the same statement as the latter may be made concerning the women in either stratum.

Table E-15.- PERCENTAGE DISTRIBUTION BY LENGTH OF AMOSKEAG ATTACHMENT OF A SPECIAL SAMPLE OF WORKERS, BY SEX AND EMPLOYMENT STRATUM^a

Sex and employment stratum	Total workers	Percentage distribution by years between first accession and final separation			
		5-9	10-14	15-19	20 or over
Men					
Regularly employed	304	6.9	10.9	21.4	60.8
Labor reserve	62	25.8	11.3	24.2	38.7
Women					
Regularly employed	238	23.2	13.9	18.5	44.4
Labor reserve	137	16.9	15.3	27.1	40.7

^aSee table E-13, fn. a.

A distribution of the operatives according to the degree of skill of their longest occupation between 1928 and 1934 discloses no striking differences. For example, from one-fifth to one-quarter of the men in either stratum were skilled workers; 50 to 60 percent, semiskilled; and almost one-fifth, unskilled. This does not differ appreciably from the much larger sample of men (see chapter IV). The same situation applied to the women. In each stratum the distribution is about identical - 9 to 12 percent skilled, 85 percent semiskilled, and the remainder clerical - and does not differ from the distribution of skills in the larger sample of women.

With these data as background, the employment and occupational records of the 62 men composing part of the labor reserve

were examined in detail. The fact that a distribution by age revealed no concentration suggests that this group covered a heterogeneous assortment of individuals. They may nevertheless be classified under three heads. One of these refers to those workers who from the management's point of view were marginal operatives; that is, their reasons for separation from Amoskeag showed that they were either inefficient, insubordinate and irresponsible, or otherwise troublesome. Inefficiency tended to be associated with advancing age but was not exclusively confined to the older worker. In times of peak production, however, it apparently was necessary to draw on such operatives for short intervals.

Another classification would embrace those who regarded work at Amoskeag as marginal employment. Other employment, either in the Manchester area or elsewhere, was regarded by these persons as preferable to Amoskeag employment. The latter, however, was preferable to unemployment. It is clear from their records that at every opportunity they left Amoskeag to accept nontextile employment and regarded Amoskeag employment as a stopgap affair; and Amoskeag employment was available only during the intermittent spurts. This type of pattern was chiefly characteristic of the young workers, who were never interested in a mill career, and of some of those in their middle years.

The third group of men composing the labor reserve was recruited mainly from the middle-aged workers with families who from all evidence were efficient operatives and desirous of regular employment at Amoskeag; but the volume of production was not sufficient to absorb them into the regularly-employed status. For this group there certainly was no mutuality of interest between the company and the workers in this intermittent employment; this is in contrast to the second group which probably considered the arrangement as possessing a fair degree of mutual advantage.

The women who constituted two-thirds of the reserve may be best identified by further comparison with the regularly employed. It has been pointed out that there were no differences between the two strata in length of Amoskeag attachment and in the relative distributions by degree of skill. The only important difference thus far disclosed is that of age: the women in the labor reserve were on the average older than those with

regular employment. It is only natural for one to expect that this age differential had some direct relationship to marital status and degree of dependency reported.

For example, 35 percent of the women with regular employment were single, whereas only 9.5 percent of the women in the labor reserve were single. In the two groups, 97 women reported their marital status as single. Of this number, 90 were regularly employed and the remainder were in the reserve. In the matter of number of dependents the evidence confirms the expected result that the regularly employed women tended to have fewer dependents than those comprising the labor reserve. Thus, of the 120 married women in the group of regularly employed reporting on number of dependents, some 54 percent had 1 or no dependents compared with 39 percent of the 117 married women in the labor reserve reporting on dependency. On the other hand, 32 percent of the latter compared with 27 percent of the married women regularly employed had 3 or more dependents (table E-16).

**Table E-16.- PERCENTAGE DISTRIBUTION OF MARRIED WOMEN,
BY NUMBER OF DEPENDENTS AND EMPLOYMENT STRATUM^a**

Employment stratum	Total married women	Percentage distribution by number of dependents					
		0	1	2	3	4	5 or over
Regularly employed	120	30.0	24.3	18.3	13.3	8.3	5.8
Labor reserve	117	18.8	20.5	29.0	12.0	9.4	10.3

^aSee table E-13, fn. a.

It is clear, therefore, that much the greater part of the labor reserve, the existence of which was necessary for Amoskeag under its conditions of intermittent operations, was composed of older married women who had family responsibilities. Because of the low annual earnings frequently received by heads of households employed by Amoskeag, many of the married women with families were obliged to seek employment to supplement these insufficient wages.⁷ In view of these responsibilities

⁷For some statistical measurement of the relationship between the level of wages and proportion of women employed, see Paul H. Douglas, *The Theory of Wages* (New York: The Macmillan Co., 1934), ch. XI, pp. 269-94.

and Amoskeag's production schedule, all that the situation permitted was partial supplementation of family income through short-time employment rather than the full supplementation of regular employment. As in the case of certain groups of men comprising the labor reserve, there is reason to believe that this arrangement was reasonably agreeable to both the workers and the company, assuming the necessity of the surrounding circumstances; this is indicated by the fact that a high percentage of the separations of this group was initiated by the operatives themselves.

The extent to which this intermittent laborforce was Amoskeag's reserve rather than the general reserve for industry in the Manchester area is indicated by the paucity of non-Amoskeag jobs held by these workers. Occupational histories covering the period 1926-36 were taken for 94 of the 137 women in the labor reserve.⁸ Only nine persons, less than one-tenth, had had any employment outside of Amoskeag between the years 1928 and 1934, and five of these were under 25 years of age (in 1936). For the 62 men in the reserve, 46 occupational histories were available, and these disclosed that 14 persons (30 percent) had had 20 different jobs outside of Amoskeag during this 7-year period. All but four of these men were under 40 years of age. Needless to add, this result was also conditioned by the volume of non-Amoskeag employment in the Manchester area, which is more fully discussed elsewhere (see chapter IV).

If further empirical verification is needed on the supplementing of the earnings of heads of households employed at Amoskeag by other members of the household seeking Amoskeag employment, recourse may be had to other data. Out of a random selection of 1,000 households in Manchester (excluding the best residential district) in 1936, it was found that in 319 households some member was "usually employed" in textile manufacturing. In 140 of these households the husband was the head of the household and usually employed at Amoskeag. In 76 instances, or 54 percent of these households, the wife was also usually employed and in all but 9 cases also by Amoskeag. Thus in over half the cases the wife was supplementing the husband's earnings, usually by seeking work from the husband's employer.

⁸NRP Form 20 (see appendix H).

It should be obvious that supplementation of family income through the employment of the women in the household is not restricted to Amoskeag or to Manchester. It is customary in most textile manufacturing centers. Indeed, it exists wherever the annual earnings of the household head are low and employment opportunities for women are available. This can be determined inferentially by reference to the United States census of persons gainfully occupied. The ratio of females 10 years of age or over who reported themselves gainfully occupied in 1930 to the gainfully occupied males of the same age group is of interest in this connection. This ratio, presented in table E-17, has been computed for Manchester, other manufacturing cities⁹ of New England with a population between 50,000

Table E-17.- DISTRIBUTION OF GAINFULLY OCCUPIED PERSONS 10 YEARS OF AGE OR OVER IN NEW ENGLAND CITIES WITH POPULATIONS OF 50,000 TO 125,000. BY SEX, 1930^a

City and State	Number		Women as percent of men
	Men	Women	
Urban New England	1,914,722	796,553	41.6
Urban United States	21,854,042	7,900,178	36.1
New Bedford, Mass.	33,659	18,465	54.9
Manchester, N. H.	22,270	12,176	54.7
Fall River, Mass.	33,066	17,505	52.9
Holyoke, Mass.	16,688	8,551	51.2
Cambridge, Mass.	34,158	17,105	50.1
Lawrence, Mass.	25,606	12,608	49.2
Lowell, Mass.	28,692	13,972	48.7
Brockton, Mass.	20,018	9,379	46.9
Pawtucket, R. I.	23,907	10,474	43.8
Lynn, Mass.	32,230	13,988	43.4
Malden, Mass.	17,373	7,078	40.7
Somerville, Mass.	31,752	12,516	39.4
Waterbury, Conn.	31,317	10,950	35.0
Medford, Mass.	17,868	6,158	34.5
New Britain, Conn.	20,632	6,967	33.8
Quincy, Mass.	22,244	6,966	31.3

^aAdapted from *Fifteenth Census of the United States: 1930, "Population"* (U. S. Dept. Com., Bur. Census, 1933), vol. IV, pp. 66, 100.

⁹Manufacturing cities are defined as those in which one-third of the gainfully occupied men were reported in manufactures according to the U. S. census of 1930.

and 125,000, all urban New England, and urban United States. The highest ratios tend to be in the textile and shoe centers, and Manchester, a center for both industries, logically enough has the second highest ratio of all, 54.7. It is exceeded only by New Bedford with a ratio of 54.9. It is noteworthy that the ratio for urban New England, 41.6, is considerably higher than the ratio for urban United States, 36.1.

The sample of the labor reserve studied by definition did not constitute the entire labor reserve. To those recognized as part of the reserve year after year must be added those who may well be called the casual or "floating" reserve. These may be identified as workers whose attachment (the interval between first accession and final separation) to Amoskeag was a half-year or less. More than one-third of the men (36.3 percent) and one-quarter of the women (25.8 percent) who separated finally from Amoskeag between 1911 and 1935 had been attached to Amoskeag a maximum of 6 months (table E-18). Presumably, it was necessary for Amoskeag to attract these casual workers, although as the volume of the company's activities declined

Table E-18.- PERCENTAGE DISTRIBUTION OF FINAL SEPARATIONS, BY LENGTH OF AMOSKEAG ATTACHMENT, PERIOD, AND SEX^a

Period in which separated and sex	Total final separations	Percent of workers having specified number of 4-year periods between first accession and final separation								
		Total	0-1	2-4	5-9	10-19	20-39	40-59	60-79	80 or over
Total	8,074	100.0	32.0	15.3	11.7	14.0	16.2	8.5	1.3	1.0
Men	4,778	100.0	36.3	16.1	11.5	12.5	13.7	7.3	1.4	1.2
Women	3,296	100.0	25.8	14.2	12.1	16.2	19.9	10.2	1.0	0.6
1911-14										
Men	1,048	100.0	59.0	25.7	11.1	2.8	0.9	0.3	0	0.2
Women	544	100.0	50.6	28.5	14.9	4.0	1.1	0.7	0.2	0
1915-18										
Men	845	100.0	45.1	17.3	20.0	14.7	2.2	0.3	0.3	0.1
Women	416	100.0	38.0	18.3	19.0	19.5	2.6	1.2	1.4	0
1919-22										
Men	722	100.0	35.2	14.1	12.5	25.1	11.5	0.7	0.5	0.4
Women	464	100.0	29.7	12.8	15.5	28.0	11.4	1.3	0.9	0.4
1923-26										
Men	649	100.0	29.6	11.0	15.4	16.3	23.6	2.3	1.2	0.6
Women	514	100.0	19.5	12.6	14.2	20.6	29.6	2.1	1.2	0
1927-29										
Men	326	100.0	27.6	6.7	5.2	18.7	31.6	4.3	2.5	3.4
Women	255	100.0	25.9	9.8	6.7	12.5	39.2	3.1	0.8	2.0
1930-June 1933										
Men	212	100.0	24.1	6.0	6.6	9.4	30.7	15.1	1.9	4.2
Women	259	100.0	17.4	12.7	10.4	11.2	33.6	12.7	0.8	1.2
July 1933-Sept. 1935										
Men	974	100.0	15.4	14.5	4.1	7.8	22.6	28.4	4.3	2.9
Women	846	100.0	8.2	6.4	5.9	16.0	29.0	32.0	1.5	1.0

^a Based on an NRP tabulation of a sample of company personnel records.

they formed a decreasing portion of final separations. That is, to an increasing extent, what may be called the hard core of the reserve came to represent a larger portion of the total reserve.

ANNUAL EARNINGS AT AMOSKEAG, 1928-34

All the evidence concerning the effects of Amoskeag's decline on its workers probably can be best summarized by a consideration of the annual wages the Amoskeag workers earned during the period of decline and liquidation. The annual wages reflect more than the revision of wage rates, mostly downward, that was related in appendixes C and D. They are a resultant also of the cyclical upswings and downswings, the latter increasing in severity as the period advanced, as well as of the intermittent employment, which affected mostly those in the labor reserve. Variations in the extent of part-time employment, of course, also figured and probably affected about equally the regular workers and the labor reserve.

Table E-19.- DISTRIBUTION OF WORKERS BY ANNUAL EARNINGS AND SEX, 1928-34^a

Year and sex	Number of workers, by annual earnings (dollars)										Median annual earnings
	Total	250 or under	251-500	501-750	751-1,000	1,001-1,250	1,251-1,500	1,501-1,750	1,751-2,000	Over 2,000	
1923, total	1,448	116	172	347	412	201	99	61	17	23	805
Men	753	46	68	123	169	140	67	60	17	23	937
Women	695	70	104	224	223	61	12	1	0	0	695
1928, total	1,173	160	150	307	315	145	74	16	3	3	726
Men	576	53	46	106	156	119	74	16	3	3	885
Women	597	107	104	201	159	26	0	0	0	0	610
1930, total	1,013	206	195	249	195	66	58	18	3	3	607
Men	482	67	65	99	100	70	57	18	3	3	777
Women	531	139	130	150	95	16	1	0	0	0	495
1931, total	981	151	191	293	164	102	47	21	7	5	628
Men	474	49	62	103	89	91	47	21	7	5	817
Women	507	102	129	190	75	11	0	0	0	0	531
1932, total	917	223	329	211	102	32	11	4	4	1	430
Men	451	71	120	113	95	32	11	4	4	1	576
Women	466	152	209	98	7	0	0	0	0	0	348
1933, total	1,082	181	383	380	99	29	3	2	5	0	466
Men	547	67	129	222	61	28	3	2	5	0	589
Women	535	114	254	158	8	1	0	0	0	0	403
1934, total	1,213	155	301	492	180	66	6	4	2	7	577
Men	628	63	92	236	158	61	6	4	2	6	670
Women	585	92	209	256	22	5	0	0	0	1	491

^aBased on an NRP tabulation of a sample of company income-tax records for workers in the cotton, worsted, and general sections. Data differ from those published in *Work and Wages at the Amoskeag Manufacturing Company Mills, 1927-35* (WPA National Research Project in cooperation with Social Security Board, Bureau of Research and Statistics, Apr. 1937), pp. 12-6, in that the data for each year in this table exclude those workers whose first accession or final separation occurred in that year.

In the years for which such data are available, the highest median annual earnings occurred in 1923 before there was a whittling away of the wage rates (table E-19). This, however, amounted to only \$805 for all workers combined, with 72 percent of the operatives earning \$1,000 or less. The average annual earnings declined as wage cut followed wage cut and unemployment became more widespread, until the average earnings in the depth of the depression were only \$430, slightly more than half the typical amount earned in 1923. During the NRA, when there was a reversal in direction of changes in both wage rates and the

Table E-20.- MEDIAN ANNUAL EARNINGS OF WORKERS, BY DEGREE OF SKILL, SECTION, AND SEX, 1923-34^a

Year and sex	Total ^b	Degree of skill			Section		
		Skilled	Semi-skilled	Unskilled	Cotton	Worsted	General
1923							
Men	\$937	\$1,128	\$884	\$813	\$831	\$1,021	\$1,461
Women	695	802	651	†	682	721	†
1928							
Men	885	985	863	794	837	873	1,231
Women	610	608	608	†	582	640	†
1930							
Men	777	859	765	665	710	732	1,297
Women	495	459	493	†	484	498	†
1931							
Men	817	866	842	678	725	807	1,245
Women	531	568	519	†	491	568	†
1932							
Men	578	638	587	475	549	543	933
Women	348	353	341	†	333	362	†
1933							
Men	589	642	568	565	561	606	810
Women	403	421	392	†	391	428	†
1934							
Men	670	824	638	613	650	592	1,028
Women	491	553	468	†	536	424	†

^aBased on an NRP tabulation of a sample of company income-tax records. For each year, workers whose first accession or final separation occurred in that year are excluded. For classification of occupations by degree of skill, see appendix G.

^bIncludes clerical workers.

†Median not computed for fewer than 50 workers.

volume of employment, there was some improvement in annual earnings.

A cross-sectional view of earnings such as the above presents the level of annual earnings in the least favorable light since it combines the skilled with the less skilled, the cotton operatives with the worsted operatives and maintenance mechanics, and the regularly employed with the intermittent workers of the labor reserve. Accordingly, the differences among some of these groups are indicated in table E-20.

Striking differences between the earnings of the men and women in the same economic categories can be explained by the aforementioned fact that the women sustained more unemployment than the men. In the case of the totals, the differences were accentuated by the fact that the total for women was more heavily weighted with the semiskilled than was the total for men.

It has been shown that in the main the skilled, semiskilled, and unskilled experienced about the same amount of unemployment. The differentials in annual earnings in favor of the more skilled are primarily the result of wage-rate differentials. The operatives in the worsted section had higher annual earnings than the operatives in the cotton section, except in 1934. With the exception of that year the worsted section had somewhat less unemployment than the cotton section.

Of special interest are the median annual earnings of the regularly employed operatives in any year (those whose weeks of employment equaled at least 39) and the earnings of the intermittent workers (those whose weeks of employment did not exceed 38). (See table E-21.)

From this presentation it is clear why the married women were obliged to seek intermittent employment. It is somewhat ironical that the supplementary earnings should have been the least when they were the most urgently needed. These figures serve also to indicate why especially extensive Government relief in Manchester antedates the shut-down of Amoskeag in 1935.¹⁰

This last in itself is an appropriate comment on the effect of Amoskeag's decline upon the workers. There was, however, still another type of adjustment sought by the Amoskeag

¹⁰For a discussion of the role of public relief in Manchester see chapter IV.

Table E-21.- MEDIAN ANNUAL EARNINGS OF REGULAR
AND INTERMITTENT WORKERS, 1928-34^a

Year	Number of workers		Median annual earnings (dollars)	
	Regular	Intermittent	Regular workers	Intermittent workers
1923	928	520	946	489
1928	849	324	850	280
1930	582	431	827	277
1931	678	303	758	265
1932	512	405	614	236
1933	714	368	598	266
1934	905	308	648	286

^aBased on an NRP tabulation of a sample of company income-tax records. In each year, the regular workers are those who had at least 39 weeks and the intermittent workers those who had less than that number of weeks with some employment. For each year, workers whose first accession or final separation occurred in that year are excluded.

workers and the dependent residents of Manchester during that period - that of migration. This, too, is a comment on the seriousness of the decline since most urban areas during the greater part of this period were receiving migrants instead of losing population.

MIGRATION, 1920-34

Extent of Migration

In Manchester it is of special interest to note that even in the decade 1910-20 the decennial increase in the city's population was slightly less than the natural increase (excess of births over deaths). To what extent this may be taken as a reaction to Amoskeag's incipient decline or as a result of wartime dislocations cannot be definitely determined. The latter influence, however, very probably was the dominant one since there was a net emigration of 1,044 men and a net immigration of 885 women, making a total net emigration of only 159 during this 10-year period.

When Amoskeag's decline was resumed in the next decade, 1920-30, emigration had reached considerable proportions. Manchester's population declined by 1,550 in the face of

a natural increase of 9,030 in the 10 years. Thus the net emigration over the decade was 10,580, or 13.5 percent of the city's 1920 population. The emigrants were about equally divided between men and women, 53.9 percent being men.¹¹

The partial evidence on emigration for the intercensal years of that decade indicates that the strike of 1922 was the initial impetus to any real force for the outward migration. It is necessary, however, to know the limitations of this evidence in order to appreciate its indicative value.

In an attempt to fill this chronic gap in demographic data (migration in intercensal years) that exists for even larger political units than a city, use was made of the assessed polls list maintained by the Manchester Board of Registrars of Voters.¹²

There is no record of migrants under 21 years of age, and it is impossible to determine what percentage of the total number of emigrants is covered in a given time period since there is no way of knowing the total. Between census dates one can compute only net changes. Whether the number of emigrants disclosed by the assessed polls list is a varying or constant percentage of the total cannot then be established. This percentage would depend primarily upon any variation in each of these years in the relative adequacy with which the post office sought to collect forwarding addresses.

On the other hand, the fluctuations in the number of emigrants over certain years agree with expected behavior from other evidence. From another source, for example, we know that a considerable number left Manchester during the 1922 strike, and

¹¹Loss of population through migration during the decade of the twenties apparently characterized most of the urban textile centers in New England if one were to judge by what happened in Massachusetts. "Of the twenty-five cities having more than 30,000 inhabitants in 1920 [in Massachusetts], only ten gained through migration during the decade. Eight cities actually diminished in total population, and seven others unable to absorb their own natural increase lost through migration. The four industrial cities, Fall River, Lawrence, Lowell, and New Bedford, experienced migration losses amounting to about twenty percent of the 1920 population." C. Warren Thornthwaite, *Internal Migration in the United States* (Philadelphia, Pa.: University of Pennsylvania Press, 1934), p. 36.

¹²An annual per-capita tax is levied on all resident persons over 21 years of age regardless of citizenship, although it is called a poll tax. To facilitate the collection of this tax, as well as to serve as a check list of qualified voters, an index card has been made out for each person liable to the tax. Every year those who were no longer residents, because of removal by death or emigration, were placed in the inactive file. The index card carried such information as date of registration and age on that date, marital status, occupation, and place of employment. Annually the office of the registrars of voters would check with the post office to determine who had moved out of Manchester and to what locality. Occasionally, a prospective migrant would notify the office of his intended removal. The fact of moving, the year of its occurrence, and the new location, if known, were entered on the card before it was placed in the inactive file. This card-index system and procedure were begun in 1914.

the statistics reflect this rise. A net outward migration of men and a net immigration of women between 1910 and 1920 are also reflected in these data. Net emigration between 1920 and 1930 was about evenly divided between men and women, and about the same division appears in the data derived from the polls lists, 47.2 percent being men. This involves the assumption that gross emigration by sex would occur in the same proportion as net emigration. The point should be made that these data concern permanent emigrants from Manchester since the discussion involves only those who have changed their legal residence.¹³

While the question of the representativeness of these data with respect to the volume of emigration is moot, no reason suggests itself for believing that they contain any bias and that this procedure does not yield a random sample. If this is so, an analysis of the characteristics of the emigrants should result in reliable information on the types of persons who resorted to migration as an adjustment to the difficulties created in Manchester by Amoskeag's decline.

Here again, however, there are certain limitations. Data on marital status were not used, for example, because this was recorded at the time of the individual's initial registration. The same sort of limitation applies to the industry designation, but the degree of possible error here was considered to be much less. Some use was therefore made of this information. In the case of the workers known to have been Amoskeag employees who left Manchester, information on personal characteristics was obtained from their personnel folder on file with the company.

According to these data, only 53 persons emigrated from Manchester in 1920, 21 of whom had been Amoskeag employees. The emigrants in the following year numbered 96, including 12 employees from the company. In 1922, the year of the 9-month strike, there were 311 emigrants; as many as 71 of these had been employed at Amoskeag. The number of emigrants in the next 2 years, during which nothing untoward occurred either at Amoskeag or in Manchester, was on the level of those in the years preceding the strike (table E-22).

¹³This is an advantage over using all out-of-town forwarding addresses left with the post office since these are bound to include many temporary changes, particularly during vacation and holiday seasons.

**Table E-22.- NUMBER OF MANCHESTER EMIGRANTS OVER 21 YEARS
OF AGE, BY INDUSTRY ATTACHMENT AND SEX, 1920-34^a**

Year	Total number			Number attached to Amoskeag at time of registration		
	Total	Men	Women	Total	Men	Women
1920	53	34	19	21	14	7
1921	96	48	48	12	9	3
1922	311	154	157	71	49	22
1923	61	34	27	9	8	1
1924	14	8	6	5	4	1
1925	181	104	77	35	28	7
1926	381	196	185	55	39	16
1927	400	198	202	68	49	19
1928	357	186	171	71	49	22
1929	457	224	233	74	46	28
1930	397	188	209	54	27	27
1931	313	136	177	40	26	14
1932	324	152	172	31	21	10
1933	370	180	190	33	21	12
1934	300	153	147	39	20	19

^aData are compiled from records in the office of the Board of Registrars of Voters, Manchester, N. H. Women registered as "housewife" have been excluded.

This is not the only evidence of the influence of the strike on migration. In April 1922 a Manchester newspaper reported:

"The first group of French-speaking people is planning to leave for Ontario next month and will be followed by others," Canadian officials said. "The mill workers are going back to the farms until the strike is over, at least, and probably for good."¹⁴

Later in the same month it was announced that "225 French and Polish families had left the city",¹⁵ and the following week a "Canadian Government Agent said today that his office has already sent 350 families to Alberta and Saskatchewan, Canada, and of that number 150 were from Manchester."¹⁶

Even after the company had resumed partial operations in the summer months, emigration continued, as indicated by the following news item:

A cry of "8 hours" went up from over a thousand Greeks assembled at the Union station in this city

¹⁴Manchester Leader, April 5, 1922.

¹⁵Ibid., April 14, 1922.

¹⁶Ibid., April 21, 1922.

this morning to bid farewell to about 500 of their countrymen who left the city for Glens Falls, N. Y., where they have been guaranteed employment with a construction company.¹⁷

It is of interest that among the emigrants of 1922, aside from concentrations among Amoskeag employees and housewives, there were concentrations among those from the trades and services and the professions; these, of course, served the underlying population, more than half of whom were unemployed at this time.

After the strike, emigration in general and of Amoskeag workers in particular was inconsequential until 1925. The financial reorganization of this year and the decline in Amoskeag's employment of more than 3,500 persons over the average in 1924 apparently forced many in Manchester to realize that the economic base of the community was weakening. There was a very decided increase in the number of emigrants with the continued worsening of employment conditions at Amoskeag during the latter part of the decade, when most other cities were enjoying more prosperous times. The average annual number of migrants in the 4 years 1926-29 was 240 percent more than the annual average of the 6 preceding years. For the Amoskeag workers who emigrated, the increase was 168 percent.

Although during the course of the general depression there was a further demoralization of wage rates at Amoskeag and the level of its employment reached new lows, there was nevertheless a decline in the volume of emigration over that in the late twenties. The annual average number of emigrants in the 5-year period 1930-34 was 15 percent less than the annual average in the preceding 4 years. For Amoskeag workers the decline was 42 percent.

These results are reasonable although counter to the population movements in most cities during the depression years. The latter had been receiving migrants from rural areas in large numbers during the twenties, and when they became unemployed during the depression, many returned to the rural areas, changing urban migration from net immigration into net emigration. Manchester, however, as the census figures reveal, had not received migrants in any appreciable number for at

¹⁷ *Manchester Mirror*, July 26, 1922.

least a decade before the onset of the general depression. As a consequence, there could not be a large exodus of rural people to the rural areas; rather the volume of emigration from Manchester would be conditioned mainly by the relative volume of employment opportunities in Manchester and other industrial centers. Since there had been a general shrinkage in the number of such opportunities both in Manchester and other industrial centers, it was reasonable to expect a decline in the number of emigrants from Manchester in these years.

Character of Migration

Aside from indicating probable fluctuations in the volume of emigration, these data can throw some light on how the selective factors in emigration worked in Manchester. Were the emigrants, for example, chiefly from manufacturing industries? Was age a factor in the migration? To what localities did the emigrants go? These are the main considerations that can be discussed upon the basis of this material.

Since much the larger part of the outward migration occurred between 1926 and 1934, the statistics of the census of 1930 may be taken as a representative description of the adult population of Manchester for the period under discussion. Our interest centers in the gainfully occupied part of the population. For this reason the women emigrants who had been recorded as housewives have been eliminated. However, those who were gainfully occupied at the time of registration and later became housewives could not be eliminated.

According to the United States census of occupations for Manchester in 1930, the gainfully occupied men aged 20 years or more constituted 66.3 percent of the total gainfully occupied population of this age. Among emigrants the analogous percentage was 66.7. Thus emigration was proportional to the sex distribution of the gainfully occupied population of Manchester.

With respect to industry, the emigrants were not distributed in proportion to the industrial division that existed in the total gainfully occupied population. For instance, 59.9 percent of the men in Manchester were gainfully occupied in manufacturing and mechanical industries. For the women the percentage was 57.3. In the sample of emigrants, on the

other hand, only one-third of both the men and women had been employed in manufacturing and mechanical industries.

This is not a surprising result despite the fact that the number of jobs in Manchester's manufactures declined about 6,000 between 1919 and 1929, with half the loss attributable to Amoskeag, while the number gainfully occupied in its trade and services increased by about 2,000 between 1920 and 1930. It would appear, however, that the expansion of employment opportunities in the latter fields was to be severely limited. Further development of trade and services in Manchester would largely depend on the wages earned by the underlying population which was employed at manufactures. We have seen already that the volume of such employment had been declining and what employment there was yielded but low wages. With the shrinkage in job opportunities in manufactures, an increasing proportion of its population would seek employment in nonmanufacturing industries. Since, for reasons noted, expansion of such employment in Manchester could occur only at a low rate and since this type of employment was expanding at a much higher rate in many other cities, it is only reasonable that a disproportionately large number of emigrants should have been from industries other than manufactures.

The relationship, just mentioned, of the level of wages to the relative development of trade and services finds support in some statistics from the census of 1930. All New England cities that had a population between 50,000 and 125,000 and in which one-third of the gainfully occupied men were engaged in manufacturing and mechanical industries were selected for comparison. There were 16 such cities. Eight of these cities specialized in the manufacture of either textiles or shoes or both, industries paying relatively low wages.¹⁸ These eight cities were treated as a unit, as were the remaining eight cities which produced a diversified line of manufactures.¹⁹ These two units were compared with each other and with the metropolitan city of Boston.

In the textile and shoe cities the annual wage per wage earner in manufactures in 1929 was \$1,076; for the other group of eight cities the annual wage per wage earner was \$1,314,

¹⁸The eight cities are Brockton, Fall River, Lawrence, Lowell, Lynn, New Bedford, Manchester, and Pawtucket.

¹⁹The eight cities are Cambridge, Holyoke, Malden, Medford, New Britain, Quincy, Somerville, and Waterbury.

and in Boston's manufactures it was \$1,394. In the first group, 33.0 percent of the gainfully occupied population in 1930 were engaged in trade, professional service, domestic- and personal-service and clerical occupations. In the second group the percentage was 46.2, and in Boston 55.7. An examination of the 16 cities individually indicates the existence of a general correlation of the sort shown here.

The evidence of the data on emigrants does not provide unequivocal support for the thesis that it is predominantly the youngest that migrate (table E-23). Thus, of all the men aged 21 or over gainfully occupied in Manchester in 1930, 9.4 percent were 21 to 24 years of age and only 6.2 percent of the men emigrants were of this age. In the next age group, 25-34 years, this relationship was reversed; that is, 24.8 percent of the gainfully occupied population of men were in this age group compared with 32.2 percent in our sample of men emigrants. While there were no appreciable differences in the middle-aged groups, differences reappeared in the older groups

Table E-23.- PERCENTAGE DISTRIBUTION OF MANCHESTER'S GAINFULLY OCCUPIED POPULATION 21 YEARS OF AGE OR OVER, 1930, AND OF MANCHESTER'S EMIGRANTS, 1920-34, BY SEX AND AGE

Age in years	Gainfully occupied population, 1930 ^a		Emigrants, 1920-34 ^b	
	Men	Women	Men	Women
Total				
Number	20,248	10,049	1,977	987
Percent	100.0	100.0	100.0	100.0
21-24	9.4	18.7	6.2	12.1
25-34	24.8	31.0	32.2	46.3
35-44	26.6	24.7	25.4	20.2
45-54	20.0	14.5	16.9	11.8
55-64	13.6	7.9	9.6	6.6
65 or over	5.6	3.2	9.7	3.0

^aAdapted from *Fifteenth Census of the United States: 1930, "Population"* (U. S. Dept. Com., Bur. Census, 1933), vol. IV, p. 987. The census reports those 20-24 years of age as one group. It is assumed that the number at each age in the 5-year interval is identical. The group total accordingly is reduced by one-fifth to obtain an estimate of those 21-24 years of age and thereby makes the age composition comparable with that available for our sample of emigrants.

^bData compiled from records in the office of the Board of Registrars of Voters, Manchester, N. H.

with less than the proportionate number aged 55-64 years among the men emigrants but with those over 65 years of age being relatively more numerous among the latter. Perhaps this last could have been due either to these very elderly persons leaving Manchester to pass their remaining years with relatives living in other localities or to the fact that they were dependent members of families that emigrated.

Much the same sorts of differences observed among the men were present among the women. For example, of all the women aged 21 years or over who were gainfully occupied, 18.7 percent were 21 to 24 years old and 31.0 percent were 25 to 34 years. Among the women emigrants, the respective percentages were 12.1 and 46.3. In the remaining age groups the differences in the relative distribution of the sample and of the population were negligible.

It appears from this that Manchester's youngest working people were not the most mobile; indeed they contributed less than their quota. Of more importance, however, was the fact that a disproportionately large number of emigrants were recruited from the most valuable fraction of the working population - those between 25 and 34 years of age.²⁰ They were young enough to be at the height of their physical strength but yet old enough to be experienced. If emigration of this fraction of the population should reach any considerable volume, there can be little doubt that it would seriously impair Manchester's ability to hold and attract industry.

For the most part, the emigration involved short-distance moves. Between 1920 and 1929 only 24.6 percent of the emigrants moved to localities outside of the New England States (table E-24). In the next 5 years this percentage was reduced to 16.8, which suggests that when the general depression set in there was even less point than before in leaving the region. It would appear then that just as a sharecropper is quite mobile within his county, so the New England millworker is quite mobile within his region.

A closer examination shows, however, that not only were most of the moves within the region but also that a large number

²⁰This did not differ materially from the age of emigrants out of Fall River, Lawrence, Lowell, and New Bedford from 1920 to 1930. Thus "the emigration affected population of all ages, but the greatest numerical and proportional migration losses were to the males twenty-five to twenty-nine years of age." Thorntwaite, *op. cit.*, pp. 38-7.

**Table E-24.- PERCENTAGE DISTRIBUTION OF A SAMPLE OF
MANCHESTER EMIGRANTS, BY PLACE OF IMMIGRATION,
1920-29 AND 1930-34^a**

Place of immigration	1920-29	1930-34
Total		
Number	1,173	926
Percent	100.0	100.0
Rest of Hillsborough County, N. H.	11.8	15.4
Rest of New Hampshire	23.7	35.3
Massachusetts	30.5	23.4
Rest of New England	9.4	9.1
Rest of United States	20.8	12.4
Foreign countries	3.8	4.4

^aData compiled from records in the office of the Board of Registrars of Voters, Manchester, N. H.

of the moves ended initially in that part of New England nearest to Manchester. Thus in the decade of the twenties, two-thirds moved either to other parts of New Hampshire or to Massachusetts, nearly 12 percent of the total remaining within Hillsborough County, in which Manchester is located. From 1930 to 1934 the concentration was even greater, almost three-quarters of the moves having been restricted to the two States and as many as 15 percent of the total remaining in Hillsborough County.

The Middle Atlantic States seemed to have had the most attractive pull for those leaving the New England region; nearly 60 percent moved to these States, and almost two-thirds of these found their way to the metropolitan area of New York City. California was the next point of concentration, 13 percent of the long-distance migrants locating there.

Unfortunately, nothing is known about the employment status experienced by the emigrants in the new localities; only the fact of migration is known.

The role of home ownership in this migration is difficult to assess. According to the 1930 census, 34.4 percent of the more than 18,500 families in Manchester owned their own homes. Our sample of emigrants was checked against the records of the city's property-tax division to determine whether the emigrant or, if married, the spouse had owned his home in

the year preceding emigration. It is difficult, however, to reduce the available data on emigrants to family units. A crude approximation is obtained by omitting the housewives from the total number of emigrants but including those who owned homes. On this basis 8.1 percent had owned their homes a year before leaving Manchester. Obviously, one cannot infer from this that home ownership impedes geographic mobility, although there is good reason to believe that it does. It may reflect only the fact that relatively more home owners than tenants have been able to make and hope to continue to make a satisfactory living in Manchester.

Amoskeag Emigrants.— The emigrants who had been former Amoskeag employees warrant special discussion since more details are known about them. The Amoskeag emigrants, especially the men, were a somewhat older group than the total sample of emigrants. For example, among the male Amoskeag workers 45.1 percent were aged 45 years or over compared with 36.2 percent for the men in the entire sample. There is also some evidence that their moves were somewhat less concentrated. Thus, during the decade of the twenties, as well as in the first half of the following decade, 61.9 percent of their moves were in New Hampshire and Massachusetts. For the entire sample the respective percentages were 66.0 and 74.1.

One of the additional details known about the Amoskeag migrant is his marital status. Among the women emigrants 54.1 percent were married; among the men, 67.9 percent. We know from a 10-percent sample of the personnel files that at the time of the shut-down 71.1 percent of the women and 61.1 percent of the men were married. The considerable underrepresentation of the married women among the emigrants may have been the result of the fact that many of the married women were part of Amoskeag's labor reserve and did not seek employment elsewhere when work was not available at Amoskeag, especially if the husband was still employed.²¹

²¹For evidence on this point see chapter IV.

Much the same situation also obtained in the New England textile village studied by Carle C. Zimmerman and Merle E. Frampton as related in *Family and Society* (2d printing; New York: D. Van Nostrand Co., Inc., 1937), p. 310: "The wives of many of the male owners worked while the mill was running, but the family was not dependent solely upon their earnings. . . . In general, the married women were dismissed before the husbands, a fact which may have discouraged further job seeking. For, naturally, a wife would stay in town at least as long as her husband was working there. And when he was discharged, the burden of job hunting fell on his shoulders. Thus, a large portion of the married women dropped out of the labor market immediately after dismissal. This may seem to imply that these women [Con.]

Of greater interest is the degree of skill of Amoskeag emigrants as measured by their last Amoskeag job (table E-25). Such information reveals the very appreciable overrepresentation of the skilled and office workers among the emigrants and suggests that these workers had a relatively easier time in finding employment elsewhere than those less skilled. This probably was not unrelated to the fact that only one-third of the Amoskeag emigrants were women, although they accounted for about half of Amoskeag's working force. That is, apparently skilled workers were most in demand, and the women at Amoskeag had been typically employed at semiskilled occupations. Another factor that would contribute to the same result was the fact that a large number of the women at Amoskeag were supplementary wage earners and would not be free to migrate unless the main wage earner in the household was unemployed or for other reasons was willing to leave the city.

That emigration meant pulling up roots for a large portion of the Amoskeag migrants seems very clear from a consideration of the length of time that they had been attached to Amoskeag.

Table E-25.- PERCENTAGE DISTRIBUTION OF AMOSKEAG EMIGRANTS, 1920-34, AND FINAL SEPARATIONS, 1933-35, BY SEX AND DEGREE OF SKILL OF LAST AMOSKEAG JOB^a

Degree of skill	Emigrants, 1920-34		Final separations, 1933-35 ^b	
	Men	Women	Men	Women
Total				
Number	397	199	974	848
Percent	100.0	100.0	100.0	100.0
Skilled	45.6	18.6	24.9	11.2
Semiskilled	27.7	52.8	51.4	85.0
Unskilled	16.4	2.0	23.1	1.2
Clerical	10.3	26.6	0.6	2.6

^aBased on an NRP tabulation of a sample of company personnel records. Names of emigrants were obtained from records in the office of the Board of Registrars of Voters, Manchester, N. H. For classification of occupations by degree of skill, see appendix G.

^bThe period extends from July 1, 1933, to September 1, 1935.

²¹[Con.] had made some other successful adaptation to their problem, but this is not necessarily the case. Never looked for work may mean that the women were unable to leave their families and household to work out of town, that the expense incurred in job hunting had better be invested in the male worker, or that the woman thought she could not find work. Many of these women would return to work if the Kingsville mill were to run again."

This is measured by the length of the interval between first accession and final separation. Slightly more than half of the emigrants had been employed at Amoskeag over a period of at least 10 years and an additional one-quarter from 5 to 10 years. For about 5 percent this interval of attachment was as brief as a half-year or less. The Amoskeag migrants, then, were only to a small extent made up of those with casual attachments to the company.

The nationality composition of the Amoskeag emigrants is also of some interest. During this period from 45 to 50 percent of the company's employees were French Canadians; the Americans, Irish, and miscellaneous nationalities each accounted for about 12 to 14 percent. About 10 percent of the millworkers were Poles and about 5 percent Greeks (see table G-6). Among the migrants, not only were the latter two nationalities under-represented but the French Canadians as well, accounting for only about 35 percent of the total. Those overrepresented were the Americans and, to a lesser extent, the Irish; that is, the less clannish ethnic groups seemed to have had more mobility.

There is some evidence bearing on the converse of this. There are very few French-Canadian settlements in towns or cities outside of the New England States, and the French Canadians, because of their clannishness, would be reluctant to move to localities having no compatriots. Accordingly, of all those that emigrated to places outside of New England, only 18 percent were French Canadians, although they constituted 35 percent of the sample of emigrants.

A contributing factor in the case of the Americans was the fact that they comprised the most skilled workers, particularly in the machinery section where retrenchment had been quite drastic as early as 1922. Moreover, since the Americans had the better jobs, their standard of living was higher than that of other nationalities. The lowering of the standard of living with the worsening of conditions at Amoskeag, together with the possibility of greater opportunities for skilled workers elsewhere, probably created a greater disposition toward migration among the Americans than among the other workers.

As in the case of the entire sample of emigrants, nothing is known about the nature of the adjustment that former Amoskeag workers had to make as a result of their emigration. To summarize, all that we know is that much the greater part

of the net loss of population of 10,000 between 1920 and 1930 occurred in the latter half of the decade and that the loss probably still continued in considerable but somewhat reduced volume during the first half of the next decade. The relative number of men and women emigrants was about the same as the relative number in the gainfully occupied population of the city. There was, however, a disproportionately large number of emigrants from industries other than manufactures and from the most productive age group, 25-34 years. Typically, the moves were over short distances, with upwards of three-fourths of the emigrants remaining within the New England States.

As to the former Amoskeag workers who left Manchester, there was a greater disposition for emigration among the men workers than among the women workers although men and women were about equally represented among the mill employees, among the single women than the married, among the office workers and skilled operatives than among the semiskilled or unskilled, and among the Americans and Irish than among the French Canadians. Upwards of 50 percent had been attached to the company for at least 10 years. Their moves, too, were characteristically within the New England States.

SUMMARY

Thus the more important consequences resulting from the gradual liquidation or decline of the Amoskeag mills may be summarized as work for a declining number, widespread intermittent employment, a continuous lowering of wage rates that were never very high, increased job assignments by means of the stretch-out, and long hours. The severity of these working conditions was temporarily relaxed while the NRA textile codes were in effect. Since the closing of the mills happened to coincide with the invalidation of the National Industrial Recovery Act, the brief respite was merely the calm before the storm.

A direct result of the gradual deterioration in working conditions at Amoskeag was the net emigration of about 10,000 Manchester residents in the decade of the twenties. In the first half of the following decade the volume of emigration was smaller but still appreciable. Among the social consequences, then, must be included all that is usually entailed in the severing of community ties of long standing by a large group of workers.

APPENDIX F

SUPPLEMENTARY TABLES

Table F-1.- NET SALES AND PRODUCTION COSTS IN THE COTTON AND WORSTED SECTIONS OF THE AMOSKEAG MANUFACTURING COMPANY, 1906 TO MAY 31, 1925^a

(Thousands of dollars)

Year ^b	Net sales		Production costs				
			Cotton section				Worsted section, total costs
	Cotton section	Worsted section	Total costs ^c	Cotton and waste	Direct labor	Coloring and dye stuffs	
1906	10,742	6,354	10,890	5,357	2,972	977	4,787
1907	12,896	5,660	11,317	5,020	3,208	1,050	5,022
1908	11,723	4,560	10,941	4,493	2,942	1,037	3,970
1909	11,784	6,252	11,224	4,630	2,785	1,058	5,818
1910	13,601	8,131	12,788	6,358	3,259	1,128	7,749
1911	14,163	5,626	13,093	6,482	3,502	1,165	5,305
1912	15,209	6,059	14,315	6,851	3,838	1,244	5,676
1913	14,787	6,996	14,034	6,698	3,944	1,284	6,580
1914	13,164	5,811	12,296	6,080	3,807	1,234	5,363
1915	13,002	5,891	12,202	4,780	3,566	1,175	5,383
1916	16,259	9,143	14,886	7,697	4,049	1,555	8,932
1917	25,220	14,320	22,860	13,490	4,482	1,901	12,944
1918	35,196	19,813	26,193	16,286	5,247	2,475	16,198
1919	28,737	12,115	24,537	14,576	5,725	1,525	11,480
1920	36,930	10,148	31,599	15,303	7,484	1,776	9,864
1921	23,701	8,233	22,039	5,889	6,874	1,828	7,020
1922	10,173	3,147	9,875	2,297	2,467	759	2,637
1923	22,285	9,807	24,074	12,105	6,584	1,944	12,582
1924	18,333	9,804	20,470	8,053	5,284	1,315	10,157
1925 (through May 31)	9,336	5,530	10,581	4,544	2,508	749	4,494

^aBased on semiannual accounts of the Amoskeag Manufacturing Company.

^bExcept for the years 1906-8, which cover the calendar year, the data refer to the fiscal year ending November 30.

^cIncludes, in addition to specified costs, the costs of taxes, new machinery, and changes in inventory.

**Table F-2.- CONSOLIDATED PROFIT AND LOSS STATEMENT OF THE AMOSKEAG MANUFACTURING COMPANY,
JUNE 1, 1925-DECEMBER 24, 1935^a**

	June 1 to December 31, 1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Net sales:	\$15,770,322.63	\$28,171,817.41	\$27,034,575.28	\$27,119,206.97	\$29,284,528.20	\$19,163,228.19	\$15,982,245.91	\$9,756,521.52	\$13,397,014.96	\$16,466,295.45	\$13,680,421.20
Cottons	10,111,333.84	17,292,045.94	17,514,461.67	17,752,036.01	18,973,703.06	12,866,117.36	9,060,783.08	5,915,583.95	8,476,872.88	12,083,650.99	9,115,643.51
Worsted	5,656,986.79	10,833,863.34	9,232,403.28	9,068,659.64	10,263,120.56	8,129,463.52	6,036,808.60	3,520,226.74	4,845,348.25	4,394,344.46	4,764,777.69
Rayons	-	45,866.13	297,645.33	237,659.32	357,699.56	147,642.29	284,653.23	320,710.83	74,793.82	-	-
Deduct:											
Cost of goods sold	17,076,810.22	29,716,456.79	25,631,935.49	27,129,014.50	27,605,108.20	20,754,001.36	16,517,149.30	10,506,517.06	12,637,015.60	16,409,946.52	13,518,914.92
Gross profit (loss) on manufactured goods sold	\$1,308,487.59	\$1,544,639.38	\$1,402,639.79	\$9,807.53	\$1,699,420.00	\$1,590,773.19	\$554,803.39	\$748,995.54	\$559,999.15	\$58,348.93	\$361,506.28
Add - profit on purchased yarn sales	-	-	31,150.56	1,099.28	6,591.10	10,925.81	9,180.25	16,046.59	15,816.58	15,729.77	5,885.09
Gross profit (loss) on sales	\$1,308,487.59	\$1,544,639.38	\$1,433,790.35	\$9,708.24	\$1,696,011.10	\$1,579,847.38	\$545,743.14	\$732,946.95	\$575,815.73	\$74,078.70	\$367,371.37
Deduct - operating expenses:											
General and administrative expenses	\$217,236.77	\$181,936.96	\$172,015.09	\$191,448.47	\$149,557.75	\$134,006.35	\$123,063.39	\$109,901.91	\$155,625.72	\$152,037.83	\$159,185.08
Selling expenses	146,009.51	315,013.56	376,661.27	420,344.22	452,196.86	441,406.92	423,895.03	361,780.20	327,916.22	369,020.54	403,830.81
Total operating expenses	\$363,306.28	\$496,950.52	\$548,676.36	\$611,792.69	\$601,754.61	\$575,473.27	\$546,958.42	\$491,682.11	\$483,541.94	\$541,108.17	\$562,015.89
Net profit (loss) from operations	\$1,671,785.87	\$2,044,588.90	\$885,063.99	\$120,500.93	\$1,094,256.49	\$2,155,320.65	\$1,082,731.56	\$1,224,629.08	\$92,273.79	\$467,029.47	\$184,844.52
Add - other income:											
Interest received, purchase discounts, etc.	\$161,775.21	\$319,844.06	\$526,422.35	\$179,336.54	\$135,543.27	\$103,701.63	\$114,217.50	\$195,184.53	\$155,935.75	\$52,668.12	\$30,420.24
Profit (loss) on cotton future operations	3,971.72	-	-	44,007.00	20,514.07	13,172.19	33,055.09	76,829.50	217,126.70	15,000.00	17,597.27
Profit on bonds retired	-	-	-	-	103,454.33	-	332,750.59	266,890.35	125,456.81	24,422.37	-
Profit on securities sold	-	-	65,100.00	-	-	-	-	39,781.68	30,760.16	83.75	-
Other	-	3,734.39	50,130.39	-	-	-	-	19,157.13	31,951.74	73,261.44	9,766.13
Total other income	\$157,603.49	\$323,576.45	\$643,652.74	\$135,369.54	\$264,511.67	\$90,529.44	\$485,033.18	\$441,194.39	\$561,291.16	\$135,535.68	\$22,612.10
Total income (loss)	\$1,513,892.38	\$1,721,018.45	\$1,528,716.73	\$485,171.39	\$1,358,768.16	\$2,064,791.21	\$1,607,698.38	\$783,434.67	\$653,564.95	\$331,483.79	\$172,032.42
Deduct - other charges:											
Interest allowed to customers	\$113,292.88	\$206,715.68	\$222,963.36	\$224,164.41	\$223,154.07	\$179,106.34	\$142,971.05	\$100,604.95	\$120,968.63	\$121,991.84	\$93,869.67
Interest paid	-	34,545.14	-	10,633.33	41,643.71	19,521.59	250.00	-	7,662.63	66,604.15	11,306.57
Bad debts (net)	28,007.09	42,464.63	101,137.29	75,129.74	76,228.55	255,103.22	37,797.74	57,015.29	33,962.07	13,732.31	148,610.61
Total other charges	\$141,299.97	\$283,745.51	\$324,100.65	\$310,147.48	\$341,226.33	\$453,731.15	\$181,018.79	\$157,620.24	\$162,913.53	\$222,328.30	\$253,810.05
Net profit (loss) before bond interest	\$1,655,292.35	\$2,004,763.86	\$1,204,596.08	\$795,318.87	\$1,017,541.83	\$2,518,522.36	\$788,717.17	\$941,054.91	\$490,651.42	\$553,822.09	\$425,842.47
Bond interest ^b	-	-	-	669,144.63	655,403.46	769,636.33	743,119.70	714,842.27	699,265.22	683,747.46	671,361.00
Net profit (loss) after all charges	\$1,655,292.35	\$2,004,763.86	\$1,204,596.08	\$1,664,463.50	\$162,135.35	\$3,308,208.69	\$1,536,836.87	\$1,655,897.18	\$208,643.80	\$1,267,569.55	\$1,097,203.47
Add - net profit (loss) of subsidiaries:											
George A. Sloan & Company, Inc.	-	-	-	-	-	-	-	-	-	-	3,266.36
Parkhill Manufacturing Company	394,821.98	734,530.88	104,750.82	67,744.12	-	-	-	-	-	-	-
Delta Land Company	10,200.11	18,462.76	61,560.50	58,288.38	84,553.84	11,709.64	15,791.19	1,554.33	3,398.74	11,396.96	18,071.61
Net profit (loss) transferred to reserve for shareholders	\$2,040,014.22	\$2,757,777.80	\$1,008,284.76	\$1,856,005.82	\$77,561.51	\$3,319,918.33	\$1,552,626.06	\$1,657,451.51	\$212,042.54	\$1,226,170.59	\$1,111,988.60

^a Copy of statement prepared in 1936 by Stewart, Watts, and Bollong, public accountants and auditors, Boston, Mass., for the Bondholders' Protective Committee of the Amoskeag Manufacturing Company. Figures in italics indicate loss.

^b Two-thirds of the bond interest was charged against the cotton section and the remainder against the worsted section.

Table F-8.- WPA EMPLOYMENT AND PAY-ROLL COSTS FOR MANCHESTER,
SEPTEMBER 1935-OCTOBER 1938^a

Year and month	Number of persons ^b	Pay-roll costs (dollars)
Total	-	6,347,840
1935		
September	9	427
October	450	19,350
November	975	42,900
December	1,530	88,740
1936		
January	2,721	119,724
February	3,752	168,840
March	3,825	210,375
April	3,785	204,390
May	3,524	190,296
June	2,995	164,725
July	2,827	158,312
August	3,245	175,230
September	3,772	211,232
October	4,007	220,385
November	3,988	218,316
December	3,730	201,420
1937		
January	3,585	197,175
February	3,491	192,005
March	3,388	182,952
April	3,339	176,967
May	3,229	174,366
June	3,214	176,770
July	2,835	153,090
August	2,496	137,260
September	2,543	134,779
October	2,657	140,821
November	2,800	148,400
December	3,162	167,748
1938		
January	3,604	194,616
February	3,430	188,650
March	3,862	194,644
April	3,693	188,115
May	3,802	189,006
June	3,745	200,070
July	3,539	191,642
August	3,762	203,148
September	3,847	199,210
October	4,106	221,724

^aFrom a special tabulation made for NRP by the New Hampshire Works Progress Administration.

^bWPA employment is permitted to only one person in a case.

**Table F-4.- COMPARATIVE CASE LOAD FOR GENERAL RELIEF
IN 24 NEW ENGLAND CITIES, 1934-38^a**

City and year	Number of families, 1930 census	Average case load ^b	Average case load as percent of number of families
Bridgeport			
1934	35,807	3,794	10.6
1935		4,208	11.8
1936		2,022	5.6
1937		1,907	5.3
1938		2,222	6.2
Hartford			
1934	40,646	4,362	10.7
1935		5,500	13.5
1936		2,699	6.6
1937		2,365	5.8
1938		2,331	5.7
New Britain			
1934	15,534	n.a.	-
1935		n.a.	-
1936		805	5.2
1937		468	3.0
1938		887	5.7
New Haven			
1934	39,554	4,579	11.6
1935		4,438	11.2
1936		2,627	6.6
1937		1,816	4.6
1938		2,271	5.7
Waterbury			
1934	23,078	1,231	5.3
1935		1,668	7.6
1936		839	3.6
1937		635	2.8
1938		1,297	5.6
Bangor			
1934	6,859	380	5.5
1935		447	6.5
1936		189	2.8
1937		181	2.6
1938		207	3.0
Lewiston			
1934	7,974	635	8.0
1935		738	9.3
1936		391	4.9
1937		534	6.7
1938		663	8.3

See footnotes at end of table.

**Table F-4.- COMPARATIVE CASE LOAD FOR GENERAL RELIEF
IN 24 NEW ENGLAND CITIES, 1934-38^a - Continued**

City and year	Number of families, 1930 census	Average case load ^b	Average case load as percent of number of families
Portland			
1934	17,478	1,616	9.2
1935		2,217	12.7
1936		1,789	10.2
1937		1,126	6.4
1938		1,094	6.3
Boston			
1934	179,200	36,475	20.4
1935		43,203	24.1
1936		18,744	10.5
1937		16,086	9.0
1938		16,574	9.2
Brockton			
1934	16,677	2,244	13.5
1935		2,543	15.2
1936		1,366	8.2
1937		1,268	7.6
1938		1,311	7.9
Cambridge			
1934	27,448	2,755	10.0
1935		3,681	13.4
1936		2,587	9.4
1937		1,928	7.0
1938		2,166	7.9
Fall River			
1934	27,001	4,696	17.4
1935		6,482	24.0
1936		2,758	10.2
1937		2,464	9.1
1938		3,053	11.3
Lawrence			
1934	20,026	n. a.	-
1935		n. a.	-
1936		540	2.7
1937		577	2.9
1938		1,097	5.5
Lowell			
1934	23,726	n. a.	-
1935		n. a.	-
1936		2,084	8.8
1937		1,608	6.8
1938		2,078	8.8

See footnotes at end of table.

**Table F-4.- COMPARATIVE CASE LOAD FOR GENERAL RELIEF
IN 24 NEW ENGLAND CITIES, 1934-38^a - Continued**

City and year	Number of families, 1930 census	Average case load ^b	Average case load as percent of number of families
Lynn			
1934	25,880	4,242	16.4
1935		4,584	17.7
1936		2,139	8.3
1937		1,734	6.7
1938		2,026	7.8
Malden			
1934	14,164	n. a.	-
1935		n. a.	-
1936		1,005	7.1
1937		942	6.7
1938		1,110	7.8
New Bedford			
1934	27,920	3,198	11.5
1935		4,121	14.8
1936		1,517	5.4
1937		1,552	5.6
1938		2,465	8.8
Newton			
1934	15,315	n. a.	-
1935		n. a.	-
1936		696	4.5
1937		636	4.2
1938		730	4.8
Somerville			
1934	25,531	2,529	9.9
1935		3,246	12.7
1936		1,509	5.9
1937		1,470	5.8
1938		1,592	6.2
Springfield			
1934	38,066	5,756	15.1
1935		6,928	18.2
1936		2,590	6.8
1937		2,048	5.4
1938		3,070	8.1
Worcester			
1934	45,853	6,091	13.3
1935		7,196	15.7
1936		3,819	8.3
1937		3,154	6.9
1938		4,837	10.5

See footnotes at end of table.

Table F-4.- COMPARATIVE CASE LOAD FOR GENERAL RELIEF
IN 24 NEW ENGLAND CITIES, 1934-38^a - Continued

City and year	Number of families, 1930 census	Average case load ^b	Average case load as percent of number of families
Burlington			
1934	6,004	490	8.2
1935		552	9.2
1936		478	8.0
1937		450	7.5
1938		306	5.1
Rutland			
1934	4,356	459	10.5
1935		496	11.4
1936		331	7.6
1937		180	4.1
1938		175	4.0
Manchester			
1934	18,748	2,479	13.2
1935		3,467	18.5
1936		2,642	14.1
1937		2,180	11.6
1938		2,354	12.6

^aFor all cities except Manchester basic data for: January 1934 to December 1935 from *Monthly Report of the Federal Emergency Relief Administration*; January 1936 to March 1937 from *General Relief Statistics: For the Fifteen-Month Period January 1936 Through March 1937* (Works Progress Administration, Division of Research, Statistics, and Records, Apr. 1938), pp. 34-39; and April 1937 to October 1938 from a special tabulation made for NRP by the Social Security Board, Bureau of Research and Statistics, Division of Public Assistance Research. Figures for 1938 are based on a 10-month average. Manchester data for: January 1934 to December 1936 from a special tabulation made for NRP by the Federal Emergency Relief Administration for New Hampshire; and January 1937 to October 1938 from the New Hampshire State Board of Welfare and Relief. Figures for 1938 are based on a 9-month average.

^bIncludes direct relief and work relief but excludes CWA and WPA employment.

n.a. Data not available.

**Table F-5.- NUMBER OF MEN PER 100 WOMEN AT AMOSKEAG,
BY NATIONALITY, 1917 AND 1929^a**

Nationality	1917	1929
Total	114.4	90.9
Americans	203.5	137.0
French Canadians	81.1	75.4
Irish	93.7	89.7
Poles	115.5	77.2
Greeks	161.4	100.8
Other	161.6	137.5

^aBased on the censuses taken by the company of its entire personnel as of January 1 of each year.

**Table F-6.- PERCENTAGE OF MEN 45 YEARS OF AGE OR OVER AT FIRST
ACCESSION AND PERCENTAGE OF MEN AT SAME AGE ENTERING
SKILLED OCCUPATIONS, BY PERIOD^a**

Period	Men 45 years of age or over at first accession as percent of -	
	All men at first accession	All men entering skilled occupations at first accession
1911-14	10.1	13.5
1915-18	17.4	24.0
1919-22	13.3	14.3
1923-26	11.4	11.1
1927-29	11.6	55.3
1930-June 1933	15.4	26.5
July 1933-Sept. 1935	18.3	33.3

^aBased on an NRP tabulation of a sample of company personnel records. For classification of occupations by degree of skill see appendix G.

Table F-7.- PERCENTAGE DISTRIBUTION OF FINAL SEPARATIONS,
BY AGE AT FINAL SEPARATION, PERIOD, AND SEX^a

Period and sex	Total final separations	Number age unknown	Number reporting age	Percent of number reporting age (years)						
				Total	16-19	20-24	25-34	35-44	45-54	55 or over
Total	8,074	39	8,035	100.0	13.3	21.3	26.2	17.3	12.1	9.8
Men	4,776	32	4,744	100.0	12.8	21.2	25.7	16.2	11.9	12.2
Women	3,298	7	3,291	100.0	13.9	21.5	27.1	18.9	12.3	6.3
1911-14										
Men	1,048	4	1,044	100.0	19.9	34.1	26.8	10.1	5.6	3.5
Women	544	1	543	100.0	23.4	30.9	24.9	14.0	5.3	1.5
1915-18										
Men	845	5	840	100.0	13.5	23.4	29.4	16.7	8.5	8.5
Women	416	0	416	100.0	15.4	30.0	26.9	12.3	10.8	4.6
1919-22										
Men	722	6	716	100.0	15.5	16.3	29.1	16.6	12.0	10.5
Women	464	0	464	100.0	14.7	23.7	32.8	14.2	11.0	3.6
1923-26										
Men	649	3	646	100.0	11.0	19.8	28.2	13.3	12.4	15.3
Women	514	1	513	100.0	13.2	23.2	27.1	16.0	12.9	7.6
1927-29										
Men	326	1	325	100.0	12.3	15.0	23.1	18.8	11.1	19.7
Women	255	2	253	100.0	13.4	15.4	33.6	17.0	11.1	9.5
1930-June 1933										
Men	212	6	206	100.0	4.9	7.8	21.4	21.3	18.4	26.2
Women	259	1	258	100.0	13.2	13.2	24.8	20.9	15.5	12.4
July 1933-Sept. 1935										
Men	974	7	967	100.0	5.6	15.0	18.7	21.8	20.4	18.5
Women	846	2	844	100.0	7.5	13.3	24.2	29.6	17.4	8.0

^aBased on an NRP tabulation of a sample of company personnel records.

Table F-8.- PERCENTAGE DISTRIBUTION OF WORKERS
BY YEARS AT LONGEST OCCUPATION,
BY DEGREE OF SKILL AND SEX^a

Number of 1-year periods at longest occupation ^b	Total ^c	Total		Skilled		Semiskilled		Unskilled	
		Men	Women	Men	Women	Men	Women	Men	Women
Total									
Number	8,079	4,776	3,303	944	741	2,437	2,322	1,296	115
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 2	41.4	47.5	32.6	30.7	17.0	51.7	37.2	52.7	40.9
2-4	20.5	20.6	20.5	16.3	20.2	20.5	20.8	24.0	19.1
5-9	14.3	11.9	17.7	11.7	20.7	11.9	16.7	11.7	17.4
10-14	7.4	6.1	9.3	8.5	10.7	6.0	8.7	4.4	9.6
15-19	4.7	3.3	6.6	5.1	9.6	2.8	5.9	2.7	4.3
20-24	3.4	2.9	4.2	5.3	6.2	2.3	3.6	2.0	3.5
25-29	2.3	2.0	2.7	5.3	3.6	1.5	2.4	0.5	1.7
30-39	2.7	2.4	3.2	6.9	6.3	1.5	2.3	0.8	0
40 or over	3.3	3.3	3.2	10.2	5.7	1.8	2.4	1.2	3.5

^aBased on an NRP tabulation of a sample of company personnel records. For classification of occupations by degree of skill see appendix G.

^bNot necessarily years of continuous employment. See appendix G.

^cIncludes clerical workers.

APPENDIX G

THE COMPANY PERSONNEL AND INCOME-TAX RECORDS

THE PERSONNEL RECORD

The system of record-keeping embodied in the Amoskeag personnel record was begun in the latter part of 1911 and from 1912 to the end of operations in 1935 was under the direction of the same individual. This doubtless has made for a greater uniformity of entries than would otherwise be expected over a 25-year period.

The character of the information to be had from the personnel record may be best indicated by describing the procedure of securing employment and of being separated from the pay roll. On obtaining employment at Amoskeag for the first time a personnel folder about 4 inches by 6 inches was made out in the worker's name. This folder would be filed in alphabetical order by sex. In the folder would be placed a duplicate of the employment pass which the worker had to show in order to gain admittance to the mill. On the employment pass was recorded information of the following character: Present age, marital status, number of dependents, occupation and department to which assigned, location of the job in the mill yard, the wage rate if paid at an hourly rate, the date employment had begun, and the pay-roll number. There was also an entry on previous experience, but usually this was disregarded unless the worker had been previously employed at Amoskeag. This was indicated by entering the pay-roll numbers previously assigned to this person.

Transfer and separation from the pay roll were each recorded on a separate form and placed in the worker's personnel folder. The former, however, was recorded only when the new job was under the jurisdiction of a different overseer. In such an instance the transfer slip stating the nature of the occupational shift and change in wage rate or pay-roll number, if any, would be forwarded to the employment office. If an overseer merely transferred a worker to another task within his department, this would not be recorded in the employment office unless it involved a change in wage rate or pay-roll

number. Consequently, the extent of transfers as measured from the personnel record is appreciably understated.

On the separation slip was recorded, in addition to the occupation and section (cotton, worsted, or general) from which separated and the effective date, the reason for separation and any remarks of the overseer. A worker, however, would not be separated from the pay roll because of curtailment of operation if the ensuing period of unemployment was regarded as temporary. In practice much latitude was used in defining temporary. As a general rule it was not to exceed 3 months, but some instances of a longer duration were found. At any rate, it is clear that the interval between accession and separation does not necessarily represent employment. Rather, it represents a period of attachment, from the company's viewpoint. Actually the interval may include one or more spells of unemployment. Thus employment as measured from the personnel record is overstated and unemployment understated.

When an operative was rehired, an employment pass was again issued and a copy placed in the operative's personnel folder. The procedure described above would be followed for any other transfers, separations, or reaccessions to the pay roll. The number and variety of slips deposited in a given personnel folder would depend on the turn-over rate of the individual concerned.

The sample of Amoskeag workers that was utilized in this report is based on the file of these personnel folders. The data were transcribed on the personnel-record schedule reproduced at the end of this appendix.

THE INCOME-TAX CARD

Since the Federal income-tax law requires an employer to report incomes of \$1,000 or over earned by persons in his employ, Amoskeag complied by making out a card for each person on the pay roll, on which was entered the amount of weekly earnings throughout the course of a calendar year. A blank entry in a given week signifies a week of unemployment. This record can be used, therefore, to examine the intervals of employment and unemployment in a given year as well as for an analysis of weekly and annual earnings. For the year 1934 the weekly hours worked were also entered, thus making it

possible to analyze part-time employment for that year. This record also designates occupation and section at the time the card was made out.

The cards were made out in February of each year to cover that calendar year, with cards added later for new workers as necessary. Accordingly, if an individual did not work after January in a given year, he would have no income-tax card. This record is available for the years 1923 and 1928 and continuously from 1930 through 1935. All those in the sample based on the personnel folders who were employed in any of these years were matched with the income-tax card or cards of the respective years. This record was transcribed on the income-tax-record schedule presented at the end of this appendix.

SAMPLING PROCEDURE AND REPRESENTATIVENESS OF THE SAMPLE

The personnel records of the Amoskeag Manufacturing Company were kept in three sets of files, with the records for men and women separately filed in each set. The records in each set were filed in alphabetical order without regard to the date of first accession to the pay roll. One set contained the records of those who had been employed any time in 1934 and 1935. Another set was reserved for those who had died, either while on the pay roll or after final separation from Amoskeag, and for those regarded by the personnel office as superannuated. The third set of files included all others who had been employed at Amoskeag ever since 1911 for any duration, no matter how long or short. Every tenth personnel record in each of the three sets of files was withdrawn to compose the sample.

It is difficult to determine in what respects this 10-percent sample is representative or nonrepresentative of the 80,800 persons who passed through the Amoskeag gates between 1911 and 1935 since so little is known about the characteristics of the total population. There is no doubt whatever that the proper sex ratio has been maintained since the arrangement of the files dictated this. It is certain also that 10 percent of those who worked at Amoskeag within the last year of its existence have been included in the sample. But here certainty ends. With respect to certain characteristics, a more or less informed guess as to the representativeness of the sample may

be made; with respect to other characteristics, complete ignorance prevails.

In the former category is the question of whether this method of sampling yields a 10-percent sample for a given time period, outside of the years 1934-35. This can be tested in an approximate manner for three periods - prosperity, depression, and NRA. It is an approximation in that the total number of different individuals in the universe must be estimated upon the basis of an untested assumption. From a company record that extends from January 1, 1924, to June 30, 1935, it is possible to determine the total number added to the pay roll in a given period. This total is composed of those rehired and those hired for the first time (first accessions). Those in the sample have been classified by their rehiring rate within a period which permits the calculation of the number of rehiring contributed by the sample. The number of first accessions within the sample is also known, as well as the number of different persons in the sample employed in a given period.

The basic assumption involved is that the ratio of hirings in the sample and universe applies to the numbers of individuals in the sample and universe. Since the number of sample hirings is based on the minimum of 1,777 persons, the assumption seems rather well taken. Application of the ratios to the numbers of different individuals in the sample yields the following results (table G-1): The sample was 7.9 percent of the universe in the period of prosperity (1927-29), 8.6 percent in the depression period (1930-June 1933), and 7.9 percent in the NRA period (July 1933-35). By a variation of this method the sample for the years 1924-26 is found to be 13.9 percent.

The years 1924-26 do not correspond exactly to one of our periods, since the post-strike period extends from 1923 to 1926. Company data were available, however, beginning with the year 1924. Since the sample rehiring rates were based on a 4-year period, the number of sample rehiring had to be adjusted for the 3-year period. It was necessary also to adjust the number of different individuals in the sample for the same reason. This was done by subtracting the number of final separations in the sample for the year 1923 from the number of persons employed in the period 1923-26.

**Table G-1.- TOTAL HIRINGS OF ALL WORKERS AND OF SAMPLE
AND PERCENTAGE OF TOTAL DIFFERENT PERSONS
IN SAMPLE, BY PERIOD, 1927-35**

Item	1927-29	1930-June 1933	July 1933-35
Total hirings			
All workers ^a	22,344	27,963	16,498
Sample ^b	1,773	2,407	1,307
Rehirings	1,382	2,051	978
First accessions	391	356	329
Different persons in sample as percent of total different persons ^c	7.94	8.61	7.92

^aBased on Amoskeag personnel records on deposit at Hamilton Smith Library, University of New Hampshire, Durham, N. H.

^bBased on an NRP tabulation of a sample of company personnel records.

^cFigures represent ratios of total hirings in sample to total hirings in universe.

Based on the results for four of the seven periods, it would appear that the sampling procedure results in subsamples that are fairly close to 10 percent of all persons ever employed at Amoskeag within a given period.

An informed guess can also be made on the matter of proportional distribution of the members of the sample among the three industrial sections: Cotton, worsted, and general. Whether the method of sampling results in a sectional distribution proportional to the distribution that obtained at Amoskeag can be tested for at least one set of files, that is, for the personnel at Amoskeag in the last year or two of its operations.

For the whole of Amoskeag this distribution is known from a count of all the income-tax cards of 1935. The distribution for the sample was secured from the tabulation of those who separated finally from the pay roll in 1935 by the section in which these people were last employed. Since that was the year of the shut-down, it involved the entire sample of that year. The comparison is set forth in table G-2.

It appears that the distribution within the sample conforms closely to that of the universe, most of the divergences being explainable by sampling errors. Since all files were arranged

Table G-2.- DISTRIBUTION OF ALL WORKERS AND THOSE IN SAMPLE,
BY SECTION, 1935^a

Section	All workers		Sample	
	Number	Percent	Number	Percent
Total	17,074	100.0	1,613 ^b	100.0
Cotton ^c	10,795	63.2	1,059	65.7
Worsted	4,896	28.7	444	27.5
General	1,383	8.1	110	6.8

^aBased on an NRP tabulation of company income-tax records.

^bIf the count of 1 in 10 was made correctly, the sample total for the year 1935 should be 1,707 instead of 1,613. The difference may be due in part to inaccuracies in counting. But possibly of more importance in explaining the difference is the fact that the file of income-tax cards contains some duplicates. That is, in some instances when a worker was transferred from one department to another or even between sections within a given year, the card was not similarly transferred, but another card was made out and filed under the new department. How widely this procedure was followed cannot be determined.

^cThe total includes 125 and the sample 13 workers previously employed in rayon, whose sectional designation was not changed in the tabulations for the periods after the liquidation of the rayon section.

in the same order, this may be taken as presumptive evidence that a fairly good industrial distribution within the sample was obtained for other years.

When the divisions are broken down into departments (picking and carding, spinning, weaving, etc.), however, there is considerably less conformity of the sample with the universe. This test could also be made for 1935. The count of the income-tax cards could be arranged by departments for the cotton and worsted sections. The personnel cards of those who separated in 1935 were tabulated by final section and occupation, and these were classified by departments. These results are presented in table G-3.

The proportional representation by departments in cotton is only fair. However, no use is made of distributions by departments; rather, workers are grouped by classes of skill: Clerical, skilled, semiskilled, and unskilled. (The occupations included under each class of skill are listed at the end of this appendix.) It is assumed that the distribution by classes of skill is related to the distribution by departments; but by decreasing the number of groupings from six to three, more adequate numbers are achieved, and possibly a better

**Table G-3.- DISTRIBUTION OF ALL WORKERS AND THOSE IN SAMPLE,
FOR THE COTTON AND WORSTED SECTIONS,
BY DEPARTMENT, 1935^a**

Section and department	All workers	Sample	Sample as percent of all workers
Cotton, total	10,670	1,046	9.8
Picking and carding	1,835	200	10.9
Spinning	2,854	232	8.1
Dressing, working, and spooling	1,355	191	14.1
Weaving	3,376	317	9.4
Bleaching and dyeing	490	61	12.4
Cloth room	780	45	5.9
Worsted, total	4,896	444	9.1
Wool sorting	240	13	5.4
Carding and drawing	970	36	3.7
Spinning and twisting	1,000	65	6.5
Dressing and warping	266	28	10.5
Weaving	625	81	13.0
Dye house	240	14	5.8
Cloth room and grey burling	1,555	187	12.0

^aBased on NRP tabulations of company income-tax records and of a sample of company personnel records.

approximation to a proportional representation in terms of skills is obtained. This applies with greater weight to the worsted industry since there is still less conformity by departments between the sample and universe and the number of cases is still less adequate. Again the 1935 data are the basis of presumptive evidence that the same sort of situation obtains in other years.

It would be of interest to know whether the sampling procedure included 10 percent of all persons hired in a given year or period. Actually this is all that was determined by virtue of the method used to find out whether the number of individuals in the sample is 10 percent of the number in the universe for a given period. Since the percentages in the above instance are considered reasonably good, the same must apply here.

Hirings, however, are composed of rehiring and first accessions. The proportional representation of the latter can

be tested for the years 1924 through 1927 (table G-4). For each of these years the number of first accessions at Amoskeag, as well as the number in the sample, is known.

Table G-4.- DISTRIBUTION OF FIRST ACCESSIONS OF ALL WORKERS AND OF THOSE IN SAMPLE, 1924-27^a

Year	Number of first accessions		Percent of total number of persons		Actual difference between percentages for all workers and sample	Difference expressed in units of standard deviation
	All workers	Sample	All workers (N=80,800)	Sample (N=8,080)		
Total	3,483	338	4.3106	4.1832	0.1274	0.54
1924	722	76	0.8938	0.9406	.0470	0.42
1925	579	70	0.7166	0.8663	.1497	1.40
1926	1,281	129	1.5854	1.5965	.0111	0.08
1927	901	63	1.1151	0.7797	.3354	3.21

^aBased on an NRP tabulation of company personnel records.

If a difference of two standard deviations is considered the limit of sampling errors, all relative differences between the sample of first accessions and the total of first accessions, except for 1927, can be explained by sampling errors. If accessions over the 4-year period are used, the relative difference is not significant. If on this showing the first accessions are considered to be accurately sampled with respect to numbers, any under- or overstatement of the sample of hirings must be attributed to an under- or overstatement of sample rehiring.

The sample of separations from the pay roll in a given period can be tested by a method somewhat similar to that for all hirings (table G-1). That is, the sample number employed in a given period is classified by separation rates, and by applying the rates against the number employed, the total number of separations can be ascertained. Since these rates exclude final separations, these must be added to the computed figure. All separations from Amoskeag (final or otherwise) are available from company records. The comparison is made in table G-5.

The percentage for the years 1924-26, making use of the type of adjustment described above for this period, is 12.91. Again

**Table G-5.- TOTAL SEPARATIONS OF ALL WORKERS AND OF SAMPLE
AND PERCENTAGE OF TOTAL SEPARATIONS INCLUDED
IN SAMPLE, BY PERIOD, 1927-35**

Separations	1927-29	1930-June 1933	July 1933-35
All workers, total ^a	23,233	28,576	18,419
Sample ^b	1,904	2,398	2,400
Final separations	581	471	1,813
Others	1,323	1,927	587
Sample as percent of all workers	8.20	8.39	13.03

^aBased on Amoskeag personnel records on deposit at Hamilton Smith Library, University of New Hampshire, Durham, N. H.

^bBased on an NRP tabulation of a sample of company personnel records.

it may be concluded that the sampling procedure at least does not produce erratic results.

Possibly of more significance than all previous measures for indicating the random character of the sample is the comparison of the relative distribution of nationalities within the sample and all of Amoskeag. Such a comparison is possible for all the periods included within the interval between 1919 and 1929, for which years company summaries are available. This comparison is made in table G-6.

In each period examined, the relative distribution of the important nationalities in the sample is similar to that for Amoskeag. The only consistent difference is the French-Canadian group which is overrepresented in the sample by 5 to 6 points, while sample errors would allow for about 2 points. This suggests that there may have been more similarity of family names (leading to some duplication) among the French Canadians than among the other nationalities.

If there had been an alphabetical concentration of names by nationalities and if the subsequent analysis should disclose a high degree of association between a certain type of behavior and a nationality group, the tabulations doubtless would be biased. However, all the tests, and particularly the comparison of the relative distribution of nationalities, indicate the random character of the sample. This is important even though no attempt has been made in this report to reconstruct the universe on the basis of the sample.

**Table G-6.- PERCENTAGE DISTRIBUTION OF ALL WORKERS
AND OF SAMPLE, BY IMPORTANT NATIONALITIES
AND PERIOD, 1919-29^a**

Nationality	1919-22		1923-26		1927-29	
	All workers	Sample	All workers	Sample	All workers	Sample
Total	100.00	100.00	100.00	100.00	100.00	100.00
Americans	13.59	11.80	13.30	11.49	12.42	11.96
French Canadians	39.16	45.52	45.76	52.08	46.05	51.03
Irish	14.54	11.40	12.09	10.39	12.96	10.64
Poles	10.24	8.90	9.66	9.43	11.11	11.43
Greeks	7.41	8.28	5.65	4.66	4.68	4.10
Other	15.06	14.10	13.54	11.95	12.78	10.84

^aBased on the company censuses and a sample of company personnel records.

PERIODS INTO WHICH DATA HAVE BEEN GROUPED FOR ANALYSIS

A year-by-year analysis of the 10-percent sample, however, would not involve a sufficient number of cases to yield representative results with respect to most items. Consequently, the grouping of years into periods is used. In delimiting periods, an attempt is made to mark off years that presumably would have been affected by a similar set of outside influences or company policies. They do not necessarily coincide with a cycle of business in general or of Amoskeag in particular. It is desirable to have as many periods as possible of equal duration since the magnitude of several items to be analyzed is dependent on the time period covered.

The 4-year interval from 1911 through 1914, designated as the pre-war period, was one of slowly declining production. The war period, 1915-18, was a period of instability with declining production in the cotton section and in the worsted section as well, with the exception of 1917 when there was a sharp increase in output of worsted. Advances in wage rates were frequent, and the workweek was reduced from 55 to 54 hours in the last year of the period. In the post-war period, 1919-22, there was also much instability with declining production in both branches. The increases in wage rates and the reduction of hours in the first half of the period gave way in the second half to reductions in wage rates and to an increase in the length of the workweek, culminating in the

9 months' strike in 1922. These three periods coincide with the era of company welfare policies.

The post-strike period, 1923-26, was one of continued adjustment to the war's aftermath and to the intensified competition of the southern mills. The months at either end of the period represent the culmination of upswings, the latter part of 1924 representing a trough. The welfare program was abandoned, and trade unionism was supplanted by a company union. The 3-year period 1927-29 is termed one of prosperity, for the cyclical peaks in 1927 and in the first half of 1929 are higher than the surrounding peaks, and the depression of 1928 does not descend to the levels of the other depressions of the decade. And in 1929 the company paid the only earned dividend since the strike of 1922.

The remainder of Amoskeag's history is divided into two parts. The first is the depression period extending from 1930 through June 1933. This coincides with the general business depression and the pre-NRA boom in the spring of 1933. In the last year of the period the United Textile Workers of America gained sufficient strength to supersede the company union.

The final period extends from July 1933 to the closing of the mills which virtually took place in September 1935. With the exception of the last few months, it is coextensive with the period covered by the NRA textile code. The activity in 1935 reflects the company's decision to process all inventories on hand before pressing for financial reorganization. It is this that caused the upswing and the sharp decline.

THE SKILL CLASSIFICATION OF OCCUPATIONS¹

The occupational information secured from the personnel records and income-tax cards was grouped for the purposes of analysis into four classifications - clerical, skilled, semiskilled, and unskilled - as follows:

¹Compiled by Anthony Debski, a former member of the Amoskeag personnel office.

Occupation and skill	Occupation and skill
CLERICAL	SEMISKILLED - Continued
SKILLED	Creelers and tie-over girls
Blacksmiths	Cutters (cloth)
Card grinders	Doffers
Card tenders and millwrights	Filling and warp
Construction, maintenance, and other mechanical occupations not else- where classified	Yarders
Beltmen	Drawers-in (girls)
Boilermakers	Drawing-frame tenders
Coremakers	Dressers
Drillers	Dry-can tenders (cloth)
Masons	Dyers (chain beam and top)
Molders	Finishers and dandy hands (yarn)
Painters	Firemen (stationary)
Plasterers	Folders, winders, and doubblers (cloth)
Riggers	Fullers
Tinsmiths	Graders
Water tenders	Harnessmakers
Welders	Helpers not elsewhere classified
Electricians	Inspectors, trimmers, sorters, and examiners
Engineers	Knot- and warp-tying operators
Hoisting	Machinists' helpers
Stationary	Menders, darners, and speckers
Foremen and overseers	Oilers
Loom fixers	Packers and wrappers
Machine fixers	Perchers
Machinists and automobile mechanics	Picker tenders
Plumbers	Piecers
Second hands and gang bosses	Quillers
Section hands	Reelers and stringers
Stationmen	Sewing-machine operators
Weavers	Sliver tenders and frame tenders
Wiremen	Slubber hands
SEMISKILLED	Spare hands
Apprentices and learners	Spear hands and nappers
Back tenders, warpmen, roll- men, and beam changers	Spindle gaggers and setters
Battery hands	Spinners
Beamers (chain)	Spoolers
Bleach-house workers	Steamer hands
Bobbin boys and girls	Stretchers and tenter-frame tenders
Calender men and pressmen	Testers
Card strippers	Truck drivers and chauffeurs
Card tenders	Truckers, handlers, etc.
Cloth burlers	Twisters
Color mixers	Warpers and beamers
Comber tenders	

Occupation and skill	Occupation and skill
SEMISKILLED - Continued	UNSKILLED - Continued
Warp fitters	Elevator hands
Washer tenders (cloth and wool)	Filling boys
Weighers	Handy men
Winders and doublers (yarn)	Laborers, etc.
Wool scourers	Roll-shop workers
Wool sorters	Roving boys
Others not elsewhere classified	Scrubbers and janitors
UNSKILLED	Sweepers
Balers	Watchmen
Dye-house workers	Yarn boys and girls

PERSONNEL RECORD, AMOSKEAG MANUFACTURING COMPANY

NAME _____

NATIONALITY _____

YEAR OF BIRTH _____ SEX _____

ADDRESS (FIRST ACCESSION) _____

PREVIOUS EXPERIENCE _____

AMOSKEAG

ELSEWHERE

ACCESSIONS AND TRANSFERS OR RECLASSIFICATIONS											SEPARATIONS			INTERVAL OF EMPLOYMENT		INTERVAL SEPARATED		NUMBER OF LAST PAYROLL
DATE OF -		MILL NUMBER AND DIVISION	DEPARTMENT	OCCUPATION	WAGE RATE	MARITAL STATUS	NO. OF DEPENDENTS	AGE	DATE	AGE	REASONS	INTERVAL OF EMPLOYMENT	INTERVAL SEPARATED	NUMBER OF LAST PAYROLL				
ACCESSION	TRANSFER																	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)				
														1923				
														1928				
														1930				
														1931				
														1932				
														1933				
														1934				
														1935				
														TRANSCRIBED BY				
														CHECKED BY				
														EDITED BY				
														CHECKED BY				
														CODED BY				
														CHECKED BY				

WORKS PROGRESS ADMINISTRATION NATIONAL RESEARCH PROJECT

OCCUPATIONAL-HISTORY SCHEDULE AND DEFINITIONS OF IMPORTANT TERMS

WAF FORM 720

WORKS PROGRESS ADMINISTRATION NATIONAL RESEARCH PROJECT

DEFINITIONS OF IMPORTANT TERMS

The occupational-history schedule, NRP Form #20, was used to secure the field-survey data. Certain terms on the schedule which are not self-explanatory are defined below:

Age is the age on last birthday prior to November 1936.

Years in City were calculated from the beginning date of the most recent period of continuous residence in the community. Absences of 6 months or less were not counted.

Employment History: The employment data were divided into the first job, the longest job, and all jobs between 1926 and October 15, 1936. This last section called for a chronological record of changes in employment status, the character of employment, and the kind of work performed. The information was entered in this section by beginning with the person's employment status at the time of the interview and working back in chronological order to January 1, 1926.

A *job* was defined as gainful employment lasting for 1 month or more in an occupation with a single employer. Periods of employment or unemployment of less than 1 month's duration were not entered. Unpaid apprenticeships were not considered as jobs. Self-employment and ownership were distinguished and included those usually self-employed, or doing contract or specialized work, or owning the establishment.

The character of employment was determined and classified into regular or intermittent work in private industry, self-employment, emergency work, or unemployment. Full time and part time were also distinguished. Intermittent employment was applied to the service of persons constituting "spare hands" or "contingent crews" on call for a particular employer or extra crews hired to complete orders in the "rush" period in industries which ordinarily offered regular employment.

Unemployment History: Unemployment, to be recorded, had to be likewise of a month's duration or more. Unemployment was divided into unemployment seeking work and unemployment not seeking work. Employment status was determined according to whether or not the person had a job on October 15, 1936. If a man was employed at the time even though he was looking for another or an additional job, he was not regarded as seeking work. If the person was not seeking work during any month of

the period between 1926 and the date of the survey, the reason for not seeking work was entered. Possible reasons were: Out on strike, temporarily disabled (sick for over 1 month but under 1 year without pay), permanently disabled (illness of 1 year or more), retired persons living on income or pension, persons 65 and over who have not worked in the last 5 years, and those who consider themselves or are considered by their relatives as too old to work.

Emergency Work: Emergency work was used as an inclusive term to cover all forms of government-made work, whether city, State, or Federal. If it was of more than 1 month's duration, it was entered, regardless of the number of hours employed per week. Although emergency work was entered as such, it was considered as unemployment in the computation of periods of unemployment.

APPENDIX I

SOME EVIDENCE ON THE RELIABILITY OF AN EMPLOYMENT HISTORY BASED ON THE WORKER'S MEMORY¹

A work history based on the memory of the worker, as recorded on a schedule by an interviewer, always gives rise to a question concerning the accuracy of the information so obtained. The materials of this study provide an opportunity to compare the duration of the work history based on interview with the duration of the supposedly same work experience derived from the company pay-roll record.

The work-history schedule provided for recording the chronological history of employment and unemployment for the 10-year period preceding the enumeration, beginning with the most recent experience. Occupation, industry, name of employer, and reason for change of status were also given.

A change of status requiring a separate entry on the schedule was defined as any one of the following situations:

Shift from one employer to another.

Shift from unemployment to employment or vice versa, indicating in each case whether seeking or not seeking work.

Shift from one occupation to another without changing employer.

Shift from not seeking work to seeking work or vice versa.

The status "not seeking work" includes voluntary removal from the labor market because of marriage, desire for a vacation, or household duties; or involuntary removal because of illness, disability, age, etc. Any status which was maintained for less than a month was not recorded. Schedules were filled out by enumerators while interviewing workers in their homes.

For 5 consecutive years (1930-34) of the 10-year period, the income-tax cards recording weeks of some employment and of no employment were available.² Accordingly, the comparison was undertaken only for that quinquennium and only for employment at Amoskeag as reported on the income-tax card. That is,

¹Adapted from an NRP memorandum prepared by Marvel Keller with the assistance of Alice Rush, April 1938.

²For a description of this record see appendix G.

employment other than at Amoskeag is regarded as no employment for the purposes of this appendix. Non-Amoskeag employment, however, formed only a small fraction of total employment during this period.

The comparison is based on 227 persons who had been employed at Amoskeag for some time during the period from 1930 to 1934. This number with the requisite Amoskeag experience was obtained by calling at every seventh house in Manchester, the best residential district being excluded. It would appear to be a random sample.

A period of employment or of no employment that lasted for 4 weeks or less according to the income-tax card was disregarded in order to place the two work histories on a comparable basis. A record of employment or of no employment secured through interview is designated as "reported" in contradistinction to "actual" employment or no employment recorded on the income-tax card.

The results of the comparison are set forth in table I-1, according to four tenure groups: Those reporting one job with continuous employment during the 5 years; those reporting one job but with one or two periods of no employment; those reporting more than one job with some periods of no employment; and

Table I-1.- NUMBER OF CASES IN WHICH TOTAL DURATION OF EMPLOYMENT AS REPORTED AGREED WITH, WAS LESS THAN, OR EXCEEDED ACTUAL TOTAL DURATION, BY REPORTED TENURE GROUP^a

Reported tenure group	Number of workers	Number of cases of -		
		Agree-ment	Under-state-ment	Over-state-ment
Total	227	32	37	158
One job, continuous employment	104	20	-	84
One job, 1 or 2 periods of no employment	85	8	28	49
More than one job, 1 period or more of no employment	34	4	5	25
No employment	4	0	4	-

^aBased on special tabulation of data from company income-tax records and from NRP interview schedules (Form 20). The data cover 1930-34; the reported data were secured in October 1938. (For definition of job as used here, see text of this appendix.)

those reporting no employment during the 5 years. Among the striking results is the relatively small number that reported their duration of Amoskeag employment with complete accuracy. Thus in only 14.1 percent of the 227 cases did the reported duration of employment agree with the actual duration. As one would expect, agreement occurred with relatively more frequency among those reporting continuous employment, but even in that group it amounted to only 19.2 percent of the cases. Understatement of employment occurred with about the same frequency (16.3 percent) as did agreement, whereas more than two-thirds of the cases involved overstatement.

The extent of the misstatement of the duration of employment in terms of man-months, however, was not so extreme as the above would indicate, although the net exaggeration of employment duration was still considerable (table I-2). That is, the reported employment of the 227 persons amounted to 10,161 months, although their actual employment equaled only 8,254.5 months. This is an overstatement of 23.1 percent of the months of actual employment. Of the first three tenure groups, those reporting more than one job overstated their employment duration somewhat more than did those reporting only one job with or without periods of no employment - an overstatement of 29 percent compared to 22 and 23.3, respectively.

Table I-2.- COMPARISON OF NUMBER OF ACTUAL MONTHS OF
EMPLOYMENT WITH THE NUMBER REPORTED,
BY REPORTED TENURE GROUP^a

Reported tenure group	Number of workers	Total months of employment		Overstate- ment of employment as percent of actual employment
		Reported	Actual	
Total	227	10,161	8,254.5	23.1
One job, continuous employment	104	6,240	5,062.5	23.3
One job, 1 or 2 periods of no employment	85	2,517	2,063.5	22.0
More than one job, 1 period or more of no employment	34	1,404	1,088.5	29.0
No employment	4	0	40.0	-

^aSee table I-1.

The latter relationships suggest that those reporting jobs of longer duration tended to have actual jobs of longer duration but not so long as reported.

The overstatement of employment was due not merely to the workers' reporting jobs for a longer duration than actually held but was due also to their failure to report entire periods of no employment. This is indirectly disclosed by a comparison of the number of jobs (at Amoskeag) reported and those actually held (table I-3). Thus those reporting continuous employment in the 5-year period failed to report nearly two-thirds of their actual jobs that had been interrupted by almost 1,200 months of no employment. Even those reporting more than one job failed to mention almost one-fourth of the actual number held, and the four persons reporting no jobs actually held six jobs.

Table I-3.- COMPARISON OF NUMBER OF JOBS REPORTED WITH THE NUMBER ACTUALLY HELD, BY REPORTED TENURE GROUP^a

Reported tenure group	Number of workers	Total number of jobs		Number of jobs per worker		Number of jobs reported as percent of number of actual jobs
		Re-reported	Actual	Re-reported	Actual	
Total	227	283	591	1.2	2.6	48.4
One job, continuous employment	104	104	282	1	2.7	36.9
One job, 1 or 2 periods of no employment	85	85	180	1	2.1	47.2
More than one job, 1 period or more of no employment	34	94	123	2.8	3.6	76.4
No employment	4	0	6	0	1.5	-

^a See table I-1.

This evidence suggests that in any industry characterized by intermittent employment, a work history of the fairly recent past based on the memory of the worker will tend to minimize the degree of intermittency by understating the number of jobs and by overstating the total duration of employment by appreciable amounts.